



**Cost of Ink Per Page Analysis  
United States**

**June 2009**

Includes ink cartridge pricing provided by



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## Summary and Scope of Analysis

For more than 23 years, QualityLogic Inc. has been a premier developer and provider of essential testing solutions to companies that design, build, or purchase printers and printing technology. Our products and services help our customers understand how the products they make or buy conform to specifications, or compare to reference implementations or competing products. We are active members of international standards organizations including ISO and Ecma International, and provide testing assistance to leading technology publications who publish printer reviews.

At the request of Eastman Kodak Company, QualityLogic calculated and compared the Cost of Ink Per Page (CoIPP) of the ESP series of All-in-One Printers to 18 competing printers selected by Kodak. Kodak's intent was to select printers with significant market share from leading manufacturers.

Monochrome and color cartridge yields for all printers were determined following ISO yield standards, and photo yields were determined using QualityLogic's photo yield methodology\*.

Ink prices for printers in the test were provided to QualityLogic by GAP Intelligence\*\*, a premier global provider of market intelligence. GAP provided the manufacturer's suggested retail price (MSRP) for each of the cartridges in the test based on information collected through Q1 2009. If the cartridge price wasn't available on the manufacturer's website, GAP Intelligence provided an average of three reseller street prices. For this report, only standard as-shipped-in-box cartridges or the standard-yield ink cartridges in single quantity pricing (i.e. no multi-packs, high yield, combo packs, value packs or special promotions) were evaluated for the purpose of making like-basis comparisons between all printers.

Although there are many factors in total cost of ownership, Cost of Ink Per Page (CoIPP) is an important factor when evaluating total cost of ownership with printer systems.

Cost of Ink Per Page was calculated by dividing these cartridge prices by the yield of each cartridge in the test.

\* All references of 'photo' in this report refer to 4x6 inch (approximately 10 x 15 cm) borderless photos.

\*\* GAP believes that the list pricing information provided is accurate; however, it is not responsible for any errors, inaccuracies, or variances caused by changes made outside of its defined survey period (Q1 2009).

The following printers and corresponding ink cartridges were included in this Cost of Ink Per Page analysis:

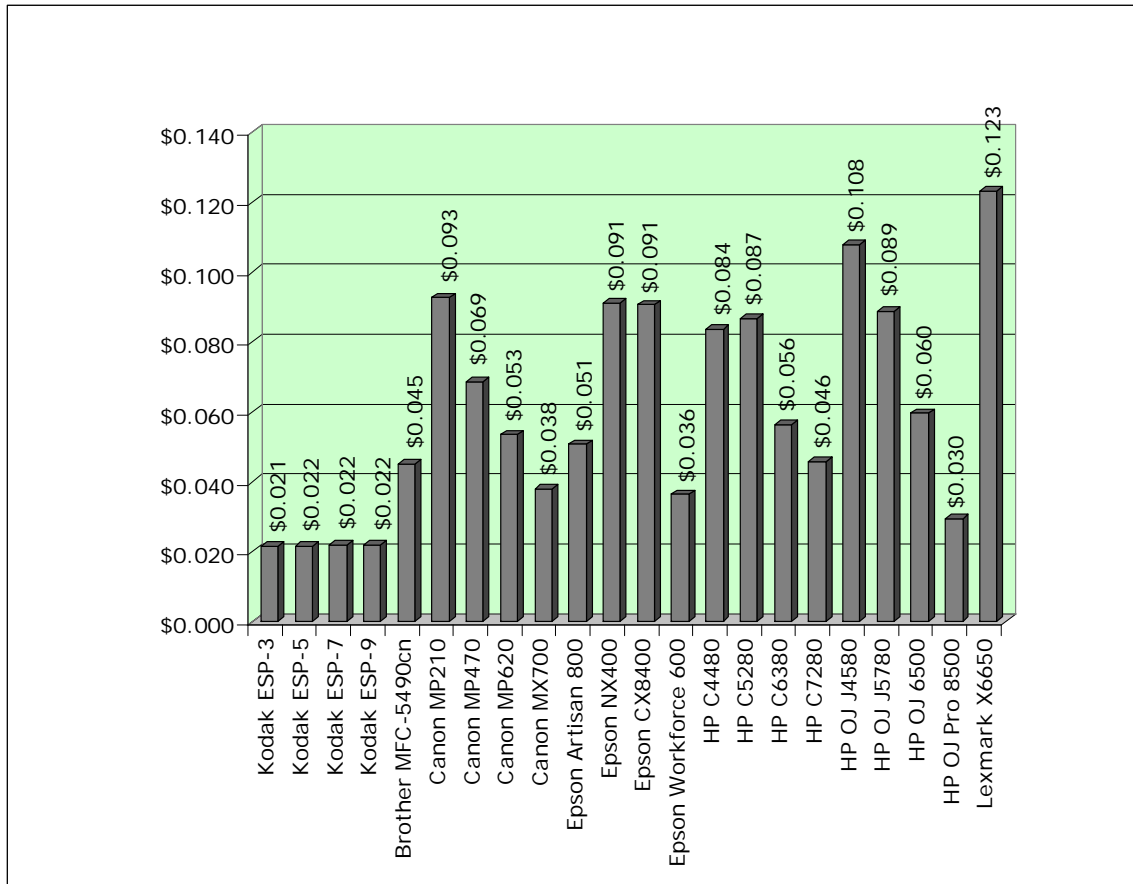
<b>Company</b>	<b>Printer</b>	<b>Cartridges</b>
Kodak	ESP-3 ESP-5 ESP-7 ESP-9	Black Ink Cartridge 10, Color Ink Cartridge 10 Black Ink Cartridge 10, Color Ink Cartridge 10 Black Ink Cartridge 10, Color Ink Cartridge 10 Black Ink Cartridge 10, Color Ink Cartridge 10
Brother	MFC-5490cn	LC61BK, LC61C, LC61M, LC61Y
Canon	PIXMA MP210 PIXMA MP470 PIXMA MP620 PIXMA MX700	PG-30, CL-31 PG-40, CL-41 PGI-220BK, CLI-221C, CLI-221M, CLI-221Y, CLI-221BK PGI-5BK, CLI-8C, CLI-8M, CLI-8Y
Epson	Artisan 800 Stylus NX400 Stylus CX8400 WorkForce 600	T0981, T0992, T0993, T0994, T0995, T0996 T0691, T0692, T0693, T0694 T0691, T0692, T0693, T0694 T0971, T0692, T0693, T0694
Hewlett-Packard	Photosmart C4480 Photosmart C5280 Photosmart C6380  Photosmart C7280  OfficeJet J4580 OfficeJet J5780 OfficeJet 6500  OfficeJet Pro 8500	HP74, HP75 HP74, HP75 HP 564 CB316WN, HP 564 CB318WN, HP 564 CB319WN, HP 564 CB320WN, HP 564 CB317WN HP02 C8721WN, HP02 C8771WN, HP02 C8772WN, HP02 C8773WN, HP02 C8774WN, HP02 C8775WN HP 901 - CC653AN, CC656AN HP74, HP75 HP 920 - CD971AN CH634AN, CH635AN, CH636AN HP9 940 - C4902AN, C4903AN, C4904AN, C4905AN
Lexmark	X6650	36A, 37A

## Cost of Ink Per Page

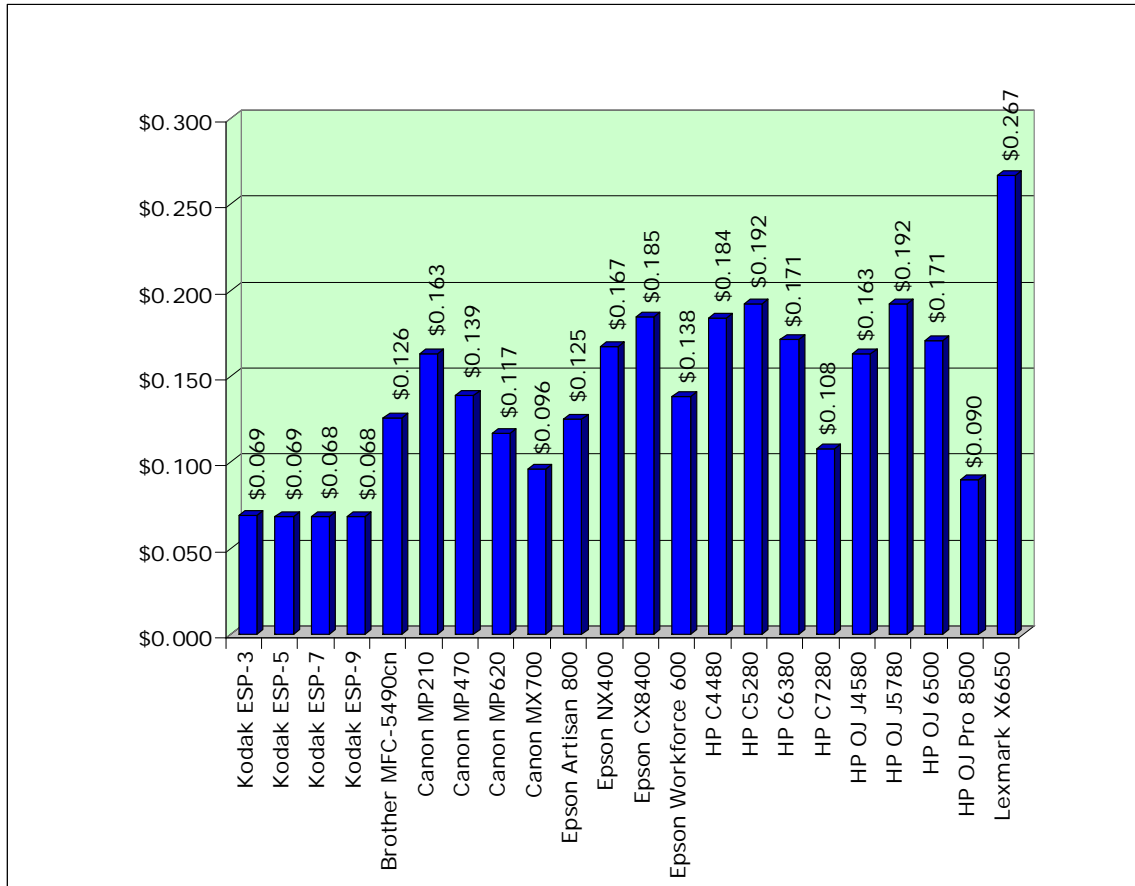
The following charts summarize the Cost of Ink Per Page for the printers tested using cartridge prices from The United States. There are three charts presented: separate charts for monochrome, color and photo printing. Details of how these costs were calculated can be found in the "Methodology for Calculation of Cost of Ink Per Page" following these graphs.

### United States: Mono - Cost of Ink Per Page

(US Dollars)

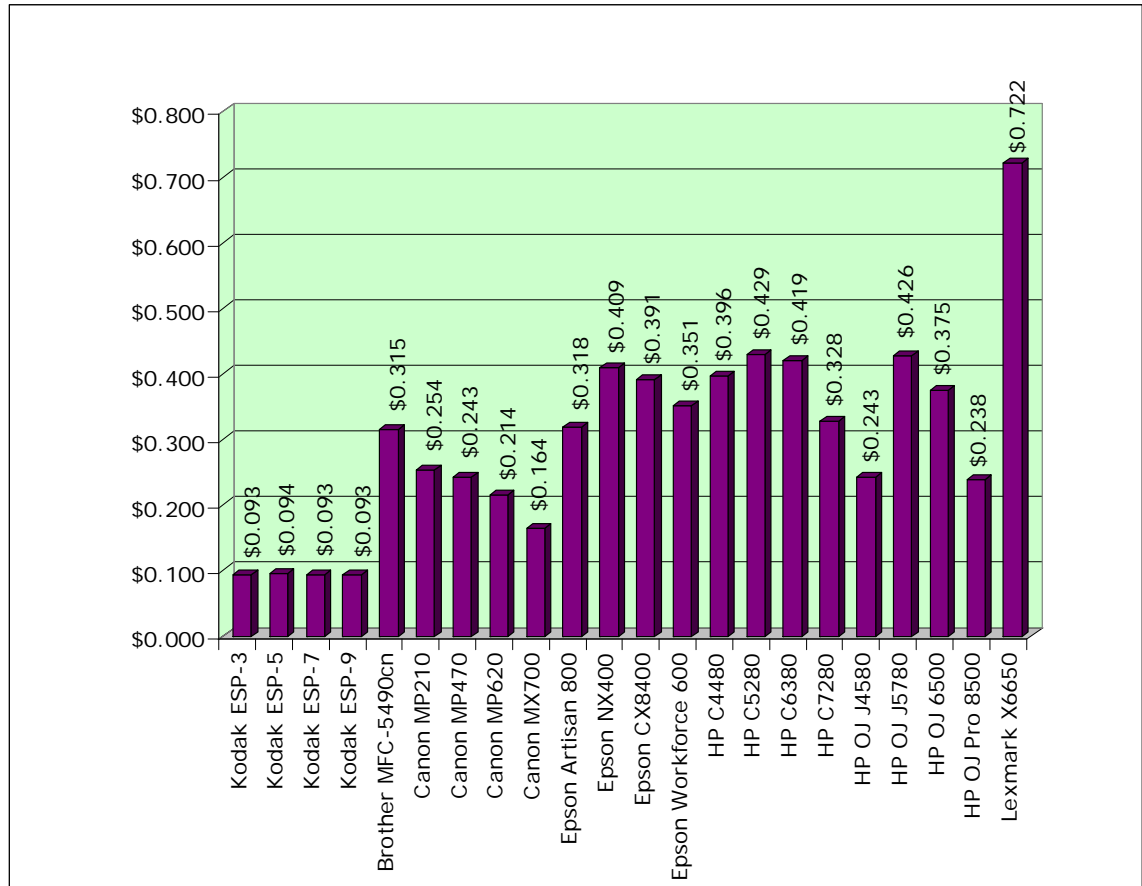


## United States: Color - Cost of Ink Per Page (US Dollars)



Test results and cost information provided by QualityLogic. Tests were performed under laboratory conditions and end-user's results may vary. Test results, ink cartridge pricing and cost per page pricing subject to change without notice by QualityLogic. All test results and cost information are provided "as-is," "as available," and all warranties, expressed or implied are hereby disclaimed. Users of the information contained herein assume full responsibility and risk of loss resulting from usage thereof.

## United States: Photo - Cost of Ink Per Page (US Dollars)



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## Methodology for Calculation of Cost of Ink Per Page

The following is a step-by-step outline of how QualityLogic, using standardized yield testing methodologies and standard pricing information provided by GAP, executed this 'Cost of Ink Per Page' test for Kodak.

### A. QualityLogic Yield Declarations

Yield testing is a process by which the target printers are operated with their ink or toner cartridges to exhaust the amount of ink/toner, and then pages printed are counted to determine the number of pages each cartridge yields. The requirements and operating conditions of such testing are determined by a standard set of testing criteria that will provide an objective and repeatable result.

QualityLogic is a leader worldwide in providing yield testing services. We support and follow the ISO (International Standards Organization) standards for mono and color testing. Use of the ISO standards for yield testing is also supported by leading manufacturers, including Canon, Dell, Epson, HP, IBM, Kodak, Lexmark, Oki Data, Pitney Bowes, Ricoh, Toshiba, Xerox, and others.

ISO is currently working on a standard for photo ink. Until this standard is released, QualityLogic uses a methodology we developed that closely follows the current ISO standards approach.

Key provisions of these standards include:

- Standard test suites
- Minimum of nine cartridges across three printers representative of products in open market
- Clear, objective end-of-life criteria
- Controlled test environment – temperature, humidity, continuous printing
- Yield reporting requirement well defined

The following pages contain tables that relate to yield testing results. The tables show the number of pages per cartridge that can be expected with 90 percent confidence based on our testing. Numbers in black indicate primary cartridges – any cartridge where a minimum of nine cartridges across three printers could be exhausted. Supplemental cartridges are indicated by red numbers and represent those cartridges that are secondary to the purpose of the test. Although supplemental cartridges are not the key focus in the tests as shown, they are included in the test reports to ensure we get a complete understanding of the ink being used.

Generally, the 'primary' cartridges for each category of testing are:

- Mono ink – the black cartridge
- Color ink – all full density cartridges containing cyan, magenta, or yellow
- Photo ink – color cartridges or others where nine cartridges were exhausted

QualityLogic performed yield tests and provided yield test reports for all cartridges for models listed below (with some of the same models also available in Europe and in North America). Each table has abbreviated sub-headings that represent the specific ink cartridge types as follows:

- CMY = A single cartridge containing cyan, magenta and yellow \*
- C = Cyan
- M = Magenta
- Y = Yellow
- K1 = Black
- K2 = A second black cartridge
- LC = Light or photo cyan
- LM = Light or photo magenta

These yield numbers apply to printers included in this analysis. Yields of primary and supplemental cartridges are reported, and the details of these results can be found in Appendix C.

	Mono Ink yield							
	CMY	C	M	Y	K1	K2	LC	LM
Kodak ESP-3	4313				555			
Kodak ESP-5	4395				551			
Kodak ESP-7	4332				542			
Kodak ESP-9	4357				539			
Brother MFC-5490cn		7056	8572	7709	568			
Canon MP210	1114				230			
Canon MP470	2588				358			
Canon MP620		3228	3498	4551	366	6866		
Canon MX700		7768	7161	9551	533			
Epson Artisan 800		1971	1915	6642	601		1891	2321
Epson NX400		1237	1608	1541	259			
Epson CX8400		1424	2257	2158	240			
Epson Workforce 600		4528	7539	4389	973			
HP C4480	1575				211			
HP C5280	1016				224			
HP C6380		2411	2445	2520	294	3031		
HP C7280		1421	804	1306	1389		14765	14293
HP OJ J4580	1313				175			
HP OJ J5780	1529				198			
HP OJ 6500		2449	2946	3572	405			
HP OJ Pro 8500		16325	16909	14209	1011			
Lexmark X6650	13196				198			

Note: Kodak's color cartridge includes black and protective inks.

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	Color Ink yield							
	CMY	C	M	Y	K1	K2	LC	LM
Kodak ESP-3	379				340			
Kodak ESP-5	379				342			
Kodak ESP-7	385				342			
Kodak ESP-9	385				342			
Brother MFC-5490cn		448	360	326	521			
Canon MP210	233				232			
Canon MP470	333				346			
Canon MP620		565	539	546	344	5141		
Canon MX700		873	676	691	488			
Epson Artisan 800		969	453	674	574		340	668
Epson NX400		400	299	430	255			
Epson CX8400		349	263	395	239			
Epson Workforce 600		400	277	417	860			
HP C4480	180				205			
HP C5280	169				203			
HP C6380		291	268	231	268	867		
HP C7280		411	383	483	713		12126	11632
HP OJ J4580	367				178			
HP OJ J5780	178				188			
HP OJ 6500		238	253	266	387			
HP OJ Pro 8500		955	956	920	984			
Lexmark X6650	188				195			

Note: Kodak's color cartridge includes black and protective inks.

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	Photo Ink yield							
	CMY	C	M	Y	K1	K2	LC	LM
Kodak ESP-3	173				1509			
Kodak ESP-5	172				1371			
Kodak ESP-7	174				1546			
Kodak ESP-9	174				1405			
Brother MFC-5490cn		88	110	91	24117			
Canon MP210	89				949			
Canon MP470	113				1637			
Canon MP620		201	217	213	1952	610		
Canon MX700		348	248	276	2809			
Epson Artisan 800		496	357	241	593		102	112
Epson NX400		90	91	123	479			
Epson CX8400		93	92	120	812			
Epson Workforce 600		109	106	138	892			
HP C4480	52				1249			
HP C5280	48				1154			
HP C6380		94	130	98	723	85		
HP C7280		306	326	152	775		141	134
HP OJ J4580	124				1632			
HP OJ J5780	49				811			
HP OJ 6500		69	97	86	1811			
HP OJ Pro 8500		240	256	274	7012			
Lexmark X6650	38				2111			

Note: Kodak's color cartridge includes black and protective inks.

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## B. Ink Cartridge Pricing

Cartridge prices used in this Cost of Ink Per Page analysis were researched and provided to QualityLogic by GAP as of Q1 2009. GAP's methodology for data collection used the manufacturer's website for each country. Only standard as-shipped-in-box cartridges or the standard-yield ink cartridges in single quantity pricing (i.e., no multi-packs, high yield, combo packs, value packs or special promotions) were evaluated for the purpose of making like-basis comparisons between all printers. Below is the summary of the ink cartridges and their individual prices.

	Ink Cartridge Pricing							
	CMY	C	M	Y	K1	K2	LC	LM
Kodak ESP-3	\$14.99				\$9.99			
Kodak ESP-5	\$14.99				\$9.99			
Kodak ESP-7	\$14.99				\$9.99			
Kodak ESP-9	\$14.99				\$9.99			
Brother MFC-5490cn		\$9.99	\$9.99	\$9.99	\$23.49			
Canon MP210	\$20.99				\$16.99			
Canon MP470	\$25.99				\$20.99			
Canon MP620		\$12.99	\$12.99	\$12.99	\$14.99	\$12.99		
Canon MX700		\$14.99	\$14.99	\$14.99	\$17.25			
Epson Artisan 800		\$10.44	\$10.44	\$10.44	\$17.09		\$10.44	\$10.44
Epson NX400		\$12.34	\$12.34	\$12.34	\$16.99			
Epson CX8400		\$12.34	\$12.34	\$12.34	\$16.99			
Epson Workforce 600		\$12.34	\$12.34	\$12.34	\$28.49			
HP C4480	\$19.99				\$14.99			
HP C5280	\$19.99				\$14.99			
HP C6380		\$9.99	\$9.99	\$9.99	\$11.99	\$9.99		
HP C7280		\$10.99	\$10.99	\$10.99	\$19.99		\$10.99	\$10.99
HP OJ J4580	\$28.99				\$14.99			
HP OJ J5780	\$19.99				\$14.99			
HP OJ 6500		\$9.99	\$9.99	\$9.99	\$19.99			
HP OJ Pro 8500		\$19.99	\$19.99	\$19.99	\$25.99			
Lexmark X6650	\$26.99				\$23.99			

US Dollars

Source: GAP

**C. Cost of Ink Per Page – Per Cartridge**

QualityLogic then calculated the Cost of Ink Per Page per cartridge by dividing the price of each cartridge (as defined by GAP's localized cartridge price, noted above in Section B) by the yield for each cartridge in each model (as defined above in Section A). This calculation results in the Cost of Ink Per Page per cartridge for each test mode: mono, color and photo.

$$\frac{\text{Price per cartridge}}{\text{Ink yield (in number of pages/photos)}} = \text{Cost of Ink Per Page – per cartridge}$$

**Mono Cost of Ink Per Individual Cartridge per Page**  
(US Dollars)

	Mono Ink Cost							
	CMY	C	M	Y	K1	K2	LC	LM
Kodak ESP-3	\$0.003				\$0.018			
Kodak ESP-5	\$0.003				\$0.018			
Kodak ESP-7	\$0.003				\$0.018			
Kodak ESP-9	\$0.003				\$0.019			
Brother MFC-5490cn		\$0.001	\$0.001	\$0.001	\$0.041			
Canon MP210	\$0.019				\$0.074			
Canon MP470	\$0.010				\$0.059			
Canon MP620		\$0.004	\$0.004	\$0.003	\$0.041	\$0.002		
Canon MX700		\$0.002	\$0.002	\$0.002	\$0.032			
Epson Artisan 800		\$0.005	\$0.005	\$0.002	\$0.028		\$0.006	\$0.004
Epson NX400		\$0.010	\$0.008	\$0.008	\$0.066			
Epson CX8400		\$0.009	\$0.005	\$0.006	\$0.071			
Epson Workforce 600		\$0.003	\$0.002	\$0.003	\$0.029			
HP C4480	\$0.013				\$0.071			
HP C5280	\$0.020				\$0.067			
HP C6380		\$0.004	\$0.004	\$0.004	\$0.041	\$0.003		
HP C7280		\$0.008	\$0.014	\$0.008	\$0.014		\$0.001	\$0.001
HP OJ J4580	\$0.022				\$0.086			
HP OJ J5780	\$0.013				\$0.076			
HP OJ 6500		\$0.004	\$0.003	\$0.003	\$0.049			
HP OJ Pro 8500		\$0.001	\$0.001	\$0.001	\$0.026			
Lexmark X6650	\$0.002				\$0.121			

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**Color Cost of Ink Per individual Cartridge per Page**  
(US Dollars)

	Color Ink cost							
	CMY	C	M	Y	K1	K2	LC	LM
Kodak ESP-3	\$0.040				\$0.029			
Kodak ESP-5	\$0.040				\$0.029			
Kodak ESP-7	\$0.039				\$0.029			
Kodak ESP-9	\$0.039				\$0.029			
Brother MFC-5490cn		\$0.022	\$0.028	\$0.031	\$0.045			
Canon MP210	\$0.090				\$0.073			
Canon MP470	\$0.078				\$0.061			
Canon MP620		\$0.023	\$0.024	\$0.024	\$0.044	\$0.003		
Canon MX700		\$0.017	\$0.022	\$0.022	\$0.035			
Epson Artisan 800		\$0.011	\$0.023	\$0.015	\$0.030		\$0.031	\$0.016
Epson NX400		\$0.031	\$0.041	\$0.029	\$0.067			
Epson CX8400		\$0.035	\$0.047	\$0.031	\$0.071			
Epson Workforce 600		\$0.031	\$0.045	\$0.030	\$0.033			
HP C4480	\$0.111				\$0.073			
HP C5280	\$0.118				\$0.074			
HP C6380		\$0.034	\$0.037	\$0.043	\$0.045	\$0.012		
HP C7280		\$0.027	\$0.029	\$0.023	\$0.028		\$0.001	\$0.001
HP OJ J4580	\$0.079				\$0.084			
HP OJ J5780	\$0.112				\$0.080			
HP OJ 6500		\$0.042	\$0.039	\$0.038	\$0.052			
HP OJ Pro 8500		\$0.021	\$0.021	\$0.022	\$0.026			
Lexmark X6650	\$0.144				\$0.123			

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**Photo Cost of Ink Per individual Cartridge per Page**  
(US Dollars)

	Photo Ink Cost							
	CMY	C	M	Y	K1	K2	LC	LM
Kodak ESP-3	\$0.087				\$0.007			
Kodak ESP-5	\$0.087				\$0.007			
Kodak ESP-7	\$0.086				\$0.006			
Kodak ESP-9	\$0.086				\$0.007			
Brother MFC-5490cn		\$0.114	\$0.091	\$0.110	\$0.001			
Canon MP210	\$0.236				\$0.018			
Canon MP470	\$0.230				\$0.013			
Canon MP620		\$0.065	\$0.060	\$0.061	\$0.008	\$0.021		
Canon MX700		\$0.043	\$0.060	\$0.054	\$0.006			
Epson Artisan 800		\$0.021	\$0.029	\$0.043	\$0.029		\$0.102	\$0.093
Epson NX400		\$0.137	\$0.136	\$0.100	\$0.035			
Epson CX8400		\$0.133	\$0.134	\$0.103	\$0.021			
Epson Workforce 600		\$0.113	\$0.116	\$0.089	\$0.032			
HP C4480	\$0.384				\$0.012			
HP C5280	\$0.416				\$0.013			
HP C6380		\$0.106	\$0.077	\$0.102	\$0.017	\$0.118		
HP C7280		\$0.036	\$0.034	\$0.072	\$0.026		\$0.078	\$0.082
HP OJ J4580	\$0.234				\$0.009			
HP OJ J5780	\$0.408				\$0.018			
HP OJ 6500		\$0.145	\$0.103	\$0.116	\$0.011			
HP OJ Pro 8500		\$0.083	\$0.078	\$0.073	\$0.004			
Lexmark X6650	\$0.710				\$0.011			

**D. Cost of Ink Per Page**

Cost of Ink Per Page for each printer is calculated by summing the Cost of Ink Per Page per cartridge for each cartridge tested in a given printer model (as determined above in Section C).

$$\text{Cost of Ink Per Page} = \text{CMY} + \text{C} + \text{M} + \text{Y} + \text{K1} + \text{K2} + \text{LC} + \text{LM}$$

The Cost of Ink Per Page per printer is reflected below. Note that, due to rounding, the total CoIPP may not match the individual ink cartridge costs.

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**Mono Cost of Ink Per Individual Cartridge and Total Cost of Ink Per Page**  
(US Dollars)

	Mono Ink Cost								Mono CoIPP
	CMY	C	M	Y	K1	K2	LC	LM	
Kodak ESP-3	\$0.003				\$0.018				\$0.021
Kodak ESP-5	\$0.003				\$0.018				\$0.022
Kodak ESP-7	\$0.003				\$0.018				\$0.022
Kodak ESP-9	\$0.003				\$0.019				\$0.022
Brother MFC-5490cn		\$0.001	\$0.001	\$0.001	\$0.041				\$0.045
Canon MP210	\$0.019				\$0.074				\$0.093
Canon MP470	\$0.010				\$0.059				\$0.069
Canon MP620		\$0.004	\$0.004	\$0.003	\$0.041	\$0.002			\$0.053
Canon MX700		\$0.002	\$0.002	\$0.002	\$0.032				\$0.038
Epson Artisan 800		\$0.005	\$0.005	\$0.002	\$0.028		\$0.006	\$0.004	\$0.051
Epson NX400		\$0.010	\$0.008	\$0.008	\$0.066				\$0.091
Epson CX8400		\$0.009	\$0.005	\$0.006	\$0.071				\$0.091
Epson Workforce 600		\$0.003	\$0.002	\$0.003	\$0.029				\$0.036
HP C4480	\$0.013				\$0.071				\$0.084
HP C5280	\$0.020				\$0.067				\$0.087
HP C6380		\$0.004	\$0.004	\$0.004	\$0.041	\$0.003			\$0.056
HP C7280		\$0.008	\$0.014	\$0.008	\$0.014		\$0.001	\$0.001	\$0.046
HP OJ J4580	\$0.022				\$0.086				\$0.108
HP OJ J5780	\$0.013				\$0.076				\$0.089
HP OJ 6500		\$0.004	\$0.003	\$0.003	\$0.049				\$0.060
HP OJ Pro 8500		\$0.001	\$0.001	\$0.001	\$0.026				\$0.030
Lexmark X6650	\$0.002				\$0.121				\$0.123

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**Color Cost of Ink Per Individual Cartridge and Total Cost of Ink Per Page**  
(US Dollars)

	Color Ink cost								Color
	CMY	C	M	Y	K1	K2	LC	LM	CoIPP
Kodak ESP-3	\$0.040				\$0.029				\$0.069
Kodak ESP-5	\$0.040				\$0.029				\$0.069
Kodak ESP-7	\$0.039				\$0.029				\$0.068
Kodak ESP-9	\$0.039				\$0.029				\$0.068
Brother MFC-5490cn		\$0.022	\$0.028	\$0.031	\$0.045				\$0.126
Canon MP210	\$0.090				\$0.073				\$0.163
Canon MP470	\$0.078				\$0.061				\$0.139
Canon MP620		\$0.023	\$0.024	\$0.024	\$0.044	\$0.003			\$0.117
Canon MX700		\$0.017	\$0.022	\$0.022	\$0.035				\$0.096
Epson Artisan 800		\$0.011	\$0.023	\$0.015	\$0.030		\$0.031	\$0.016	\$0.125
Epson NX400		\$0.031	\$0.041	\$0.029	\$0.067				\$0.167
Epson CX8400		\$0.035	\$0.047	\$0.031	\$0.071				\$0.185
Epson Workforce 600		\$0.031	\$0.045	\$0.030	\$0.033				\$0.138
HP C4480	\$0.111				\$0.073				\$0.184
HP C5280	\$0.118				\$0.074				\$0.192
HP C6380		\$0.034	\$0.037	\$0.043	\$0.045	\$0.012			\$0.171
HP C7280		\$0.027	\$0.029	\$0.023	\$0.028		\$0.001	\$0.001	\$0.108
HP OJ J4580	\$0.079				\$0.084				\$0.163
HP OJ J5780	\$0.112				\$0.080				\$0.192
HP OJ 6500		\$0.042	\$0.039	\$0.038	\$0.052				\$0.171
HP OJ Pro 8500		\$0.021	\$0.021	\$0.022	\$0.026				\$0.090
Lexmark X6650	\$0.144				\$0.123				\$0.267

Test results and cost information provided by QualityLogic. Tests were performed under laboratory conditions and end-user's results may vary. Test results, ink cartridge pricing and cost per page pricing subject to change without notice by QualityLogic. All test results and cost information are provided "as-is," "as available," and all warranties, expressed or implied are hereby disclaimed. Users of the information contained herein assume full responsibility and risk of loss resulting from usage thereof.

**Photo Cost of Ink Per Individual Cartridge and Total Cost of Ink Per Page**  
(US Dollars)

	Photo Ink Cost								Photo CoIPP
	CMY	C	M	Y	K1	K2	LC	LM	
Kodak ESP-3	\$0.087				\$0.007				\$0.093
Kodak ESP-5	\$0.087				\$0.007				\$0.094
Kodak ESP-7	\$0.086				\$0.006				\$0.093
Kodak ESP-9	\$0.086				\$0.007				\$0.093
Brother MFC-5490cn		\$0.114	\$0.091	\$0.110	\$0.001				\$0.315
Canon MP210	\$0.236				\$0.018				\$0.254
Canon MP470	\$0.230				\$0.013				\$0.243
Canon MP620		\$0.065	\$0.060	\$0.061	\$0.008	\$0.021			\$0.214
Canon MX700		\$0.043	\$0.060	\$0.054	\$0.006				\$0.164
Epson Artisan 800		\$0.021	\$0.029	\$0.043	\$0.029		\$0.102	\$0.093	\$0.318
Epson NX400		\$0.137	\$0.136	\$0.100	\$0.035				\$0.409
Epson CX8400		\$0.133	\$0.134	\$0.103	\$0.021				\$0.391
Epson Workforce 600		\$0.113	\$0.116	\$0.089	\$0.032				\$0.351
HP C4480	\$0.384				\$0.012				\$0.396
HP C5280	\$0.416				\$0.013				\$0.429
HP C6380		\$0.106	\$0.077	\$0.102	\$0.017	\$0.118			\$0.419
HP C7280		\$0.036	\$0.034	\$0.072	\$0.026		\$0.078	\$0.082	\$0.328
HP OJ J4580	\$0.234				\$0.009				\$0.243
HP OJ J5780	\$0.408				\$0.018				\$0.426
HP OJ 6500		\$0.145	\$0.103	\$0.116	\$0.011				\$0.375
HP OJ Pro 8500		\$0.083	\$0.078	\$0.073	\$0.004				\$0.238
Lexmark X6650	\$0.710				\$0.011				\$0.722

Test results and cost information provided by QualityLogic. Tests were performed under laboratory conditions and end-user's results may vary. Test results, ink cartridge pricing and cost per page pricing subject to change without notice by QualityLogic. All test results and cost information are provided "as-is," "as available," and all warranties, expressed or implied are hereby disclaimed. Users of the information contained herein assume full responsibility and risk of loss resulting from usage thereof.

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### Gap Intelligence - Company Overview

Gap intelligence is a global leader in providing timely, actionable competitive intelligence solutions to help manufacturers in the digital imaging space stay ahead of the competition. Our printer hardware and supplies databases are updated on a weekly basis with street pricing and promotional data. Dedicated industry analysts publish insightful, analytical reports and tools to help our clients make smarter decisions and respond to market changes faster.

## **Appendix A: QualityLogic Declared Yield Test Results**

The following data was extracted from the Yield Reports for each product tested. Complete reports are available from QualityLogic upon request.

# ISO Test Results - Summary

## Test Methodology

In order to obtain these yield results, two different methodologies were used in combination with three test suites. This section will detail the common areas between the methodologies, the differences between them, and highlight some key terms from ISO/IEC 24711, 24712, and 19752 that are particularly important to understand when reviewing these yield claims.

### Common Methodology and Definitions

Number of Printers Tested	Minimum of three
Number of Cartridges Tested	Minimum of nine of each color
Temperature	Testing room average 23.0°C ± 2°C with all running average temperatures between 20.0°C and 26.0°C
Fade	Phenomenon in which a significant reduction in uniformity occurs due to ink depletion
Ink Out	Signal generated by the printing system when the usable ink in the system is depleted and the printer stops printing
End of Life (EOL)	A condition determined by one of two mechanisms: fade or ink out (only if ink out stops printing)
Semi-Continuous Printing	Printing in a continuous manner, pausing only for intra-job servicing, printer calibrations, paper changes, breaks, and end of work days
Declared Cartridge Yield	Cartridge Yield (in pages) that is at or below the lower 90% confidence bound of the average yield
Estimated Supplemental Cartridge Yield	Estimated yield for a supplemental cartridge (real or estimated with use of a proxy) calculated with at least three cartridges
Average Supplemental Cartridge Yield	Average yield for a supplemental cartridge where EOL was reached on at least nine cartridges (three per printer)
Proxy Cartridge	A primary cartridge of the same physical size as a supplemental cartridge which had a starting weight within +/- 10% of the supplemental cartridge starting weight.

**Mono Ink Methodology and Definitions –  
In accordance with ISO/IEC 24711, ISO/IEC 19752**

Test Suite	ISO/IEC 19752
Driver Set-up	See Color Ink Methodology. In addition, if a “Black Only” or “Text Only” mode was available in the driver, it was enabled.
Paper	A4 or 8 ½" x 11" (see individual test reports).
Semi-Continuous Printing	Each copy of the test suite was printed as a separate one-page print job allowing for some intra-job servicing and calibration to take place.
Primary Cartridge	The black cartridge or, if no black cartridge was present, the color cartridges that were used to develop composite black.
Supplemental Cartridge	Any installed cartridge except the full density black cartridge, including the full density Cyan, Magenta, and Yellow cartridges, as well as any photo cartridges.
Individual Cartridge Yield	The number of test pages printed between cartridge installation and end of life.

**Color Ink Methodology and Definitions –  
In accordance with ISO/IEC 24711, ISO IEC 24712**

Test Suite	ISO/IEC 24712
Driver Set-up	All image and print quality modifiers were set to their factory pre-set configuration for the printer and default installed condition for the driver. If auto media detection was available on the printer, it was disabled and media-type set to plain paper.
Paper	A4 or 8 ½" by 11" (see individual test reports).
Semi-Continuous Printing	Each copy of the test suite was printed as a separate five-page print job allowing for some intra-job servicing and calibration to take place.
Primary Cartridge	Cartridge containing full density black, cyan, magenta, or yellow, or a combination of full density cyan, magenta and yellow.
Supplemental Cartridge	Cartridge other than the full density cyan, magenta, yellow and black cartridges.
Individual Cartridge Yield	Value determined by counting the number of diagnostic pages (last page of the test page suite) printed between cartridge installation and end of life, and multiplying by five.

**Photo Ink Methodology and Definitions –  
In accordance with QualityLogic Color Photo Cartridge Yield Test  
Methodology**

Test Suite	QualityLogic Color Photo Suite.
Driver Set-up	The highest print quality mode readily available in the driver was used.
Paper	The best photo paper recommended by each manufacturer. A4 or 8 ½" x 11" papers were used to print a borderless 4" x 6" (approximately 10 x 15 cm) photo. (See individual test reports).
Semi-Continuous Printing	Each copy of the test suite was printed as a separate 10-page print job allowing for some intra-job servicing and calibration to take place.
Primary Cartridge	Cyan, Magenta, Yellow and Photo cartridges or any cartridges containing these colors were considered as primary cartridges. In addition, any other cartridge that exhausted nine or more cartridges during the execution of nine of the above cartridges was considered as primary.
Supplemental Cartridge	Any cartridge installed in the printer while printing photos that did not meet the definition of a primary cartridge was considered a supplemental cartridge.
Individual Cartridge Yield	The number of test pages printed between cartridge installation and end of life.

The following data was extracted from the Yield Reports for each product tested – complete reports are available upon request.

<b>Printer Identifier</b>	<b>ESP-3 All-in-One Printer</b>
Printer Manufacturer	Kodak
Cartridge Identifier	Black Ink Cartridge 10 & Color Ink Cartridge 10
Cartridge Type	Separate ink supply and print head
Date Tested	September 10, 2008 to September 22, 2008
EOL Criteria	This printer has Ink Out which stops printing. Whichever came first, either Ink Out or Fade, was used as the EOL criteria.
Print mode used	Continuous
Paper Size	Letter
Media used	Xerox Business 4200, 92 Brightness, 20lb. weight
Driver version	Driver Version=07/17/2008, 2.07.0151.0 Color Ink test: The driver's default settings were used. Mono Ink Test: Print color as = Changed to Black and White from Color

**Declaration of Yield**

**Inkjet Cartridge Yield when tested in Kodak ESP-3 All-in-One Printer:**

Using the test suite defined in ISO/IEC 24712 provides the following results:

Average K (Black) Cartridge Yield – Up to 340 standard pages

Average Color Cartridge Yield – Up to 379 standard pages

Using the test page defined in ISO/IEC 19752 provides the following results:

Average K (Black) Cartridge Yield – Up to 555 standard pages

Estimated supplemental Color Cartridge Yield – Up to 4,313 standard pages

Values obtained by continuous printing. Declared yield values in accordance with ISO/IEC 24711

**Using 24712 Test Suite**

Cartridge Identifier	Color	Average (pages)	Standard Deviation (pages)	90% Lower Confidence (pages)	Number used in calculations/test	Primary/ Supplemental
Black Ink Cartridge 10	K (Black)	345	9	340	9/12	Primary
Color Ink Cartridge 10	Color	386	11	379	9/9	Primary

**Using 19752 Test Page**

Cartridge Identifier	Color	Average (pages)	Standard Deviation (pages)	90% Lower Confidence (pages)	Number used in calculations/test	Primary/ Supplemental
Black Ink Cartridge 10	K (Black)	557	7	555	25/26	Primary
Color Ink Cartridge 10	Color	4,758	264	4,313	3/3	Supplemental

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<b>Printer Identifier</b>	<b>ESP-3 All-in-One Printer</b>
Printer Manufacturer	Kodak
Cartridge Identifier	Black Ink Cartridge 10 & Color Ink Cartridge 10
Cartridge Type	Separate ink supply and print head
Date Tested	September 10, 2008 to September 22, 2008
EOL Criteria	This printer has Ink Out which stops printing. Whichever came first, either Ink Out or Fade, was used as the EOL criteria.
Print mode used	Continuous
Paper Size	4" x 6" borderless photo on 8 ½" x 11" photo paper
Media used	KODAK Ultra Premium Photo Paper High Gloss
Driver version	Driver Version=07/17/2008, 2.07.0151.0 The driver's default settings were used.

### Declaration of Yield

#### Inkjet Cartridge Yield when tested in Kodak ESP-3 All-in-One Printer:

Using the QualityLogic Color Photo test suite provides the following results:

Average Color Cartridge Yield – Up to 173 standard pages

Estimated supplemental K (Black) Cartridge Yield – Up to 1,509 standard pages

Values obtained by continuous printing. Declared yield values in accordance with QualityLogic Color Photo Yield Test Methodology

Cartridge Identifier	Color	Average (pages)	Standard Deviation (pages)	90% Lower Confidence (pages)	Number used in calculations/test	Primary/ Supplemental
Color Ink Cartridge 10	Color	173	1	173	9/9	Primary
Black Ink Cartridge 10	K (Black)	1,719	124	1,509	3/3	Supplemental

<b>Printer Identifier</b>	<b>ESP-5 All-in-One Printer</b>
Printer Manufacturer	Kodak
Cartridge Identifier	Black Ink Cartridge 10 & Color Ink Cartridge 10
Cartridge Type	Separate ink supply and print head
Date Tested	August 25, 2008 to September 4, 2008
EOL Criteria	This printer has Ink Out which stops printing. Whichever came first, either Ink Out or Fade, was used as the EOL criteria.
Print mode used	Continuous
Paper Size	Letter
Media used	Xerox Business 4200, 92 Brightness, 20lb. weight
Driver version	Driver Version=07/17/2008, 2.07.0151.0 Color Ink test: The driver's default settings were used. Mono Ink Test: Print color as = Changed to Black and White from Color

### Declaration of Yield

#### Inkjet Cartridge Yield when tested in Kodak ESP-5 All-in-One Printer:

Using the test suite defined in ISO/IEC 24712 provides the following results:

Average K (Black) Cartridge Yield – Up to 342 standard pages

Average Color Cartridge Yield – Up to 379 standard pages

Using the test page defined in ISO/IEC 19752 provides the following results:

Average K (Black) Cartridge Yield – Up to 551 standard pages

Estimated supplemental Color Cartridge Yield – Up to 4,395 standard pages

Values obtained by continuous printing. Declared yield values in accordance with ISO/IEC 24711

Using 24712 Test Suite						
Cartridge Identifier	Color	Average (pages)	Standard Deviation (pages)	90% Lower Confidence (pages)	Number used in calculations/test	Primary/ Supplemental
Black Ink Cartridge 10	K (Black)	347	8	342	9/12	Primary
Color Ink Cartridge 10	Color	387	13	379	9/9	Primary

Using 19752 Test Page						
Cartridge Identifier	Color	Average (pages)	Standard Deviation (pages)	90% Lower Confidence (pages)	Number used in calculations/test	Primary/ Supplemental
Black Ink Cartridge 10	K (Black)	552	2	551	24/24	Primary
Color Ink Cartridge 10	Color	4,415	12	4,395	3/3	Supplemental

<b>Printer Identifier</b>	<b>ESP-5 All-in-One Printer</b>
Printer Manufacturer	Kodak
Cartridge Identifier	Black Ink Cartridge 10 & Color Ink Cartridge 10
Cartridge Type	Separate ink supply and print head
Date Tested	September 4, 2008 to September 8, 2008
EOL Criteria	This printer has Ink Out which stops printing. Whichever came first, either Ink Out or Fade, was used as the EOL criteria.
Print mode used	Continuous
Paper Size	4" x 6" borderless photo on 8 ½" x 11" photo paper
Media used	KODAK Ultra Premium Photo Paper High Gloss
Driver version	Driver Version=07/17/2008, 2.07.0151.0 The driver's default settings were used.

**Declaration of Yield**

**Inkjet Cartridge Yield when tested in Kodak ESP-5 All-in-One Printer:**

Using the QualityLogic Color Photo test suite provides the following results:

Average Color Cartridge Yield – Up to 172 standard pages

Estimated supplemental K (Black) Cartridge Yield – Up to 1,371 standard pages

Values obtained by continuous printing. Declared yield values in accordance with QualityLogic Color Photo Yield Test Methodology

Cartridge Identifier	Color	Average (pages)	Standard Deviation (pages)	90% Lower Confidence (pages)	Number used in calculations/test	Primary/ Supplemental
Color Ink Cartridge 10	Color	173	1	172	9/9	Primary
Black Ink Cartridge 10	K (Black)	1,677	182	1,371	3/3	Supplemental

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<b>Printer Identifier</b>	<b>ESP-7 All-in-One Printer</b>
Printer Manufacturer	Kodak
Cartridge Identifier	Black Ink Cartridge 10 & Color Ink Cartridge 10
Cartridge Type	Separate ink supply and print head
Date Tested	March 19, 2009 to April 9, 2009
EOL Criteria	This printer has Ink Out which stops printing. Whichever came first, either Ink Out or Fade, was used as the EOL criteria.
Print mode used	Continuous
Paper Size	Letter
Media used	Xerox Business 4200, 92 Brightness, 20lb. weight
Driver version	DriverVer=07/18/2008, 2.07.151.0 Mono Ink Test: Print colors as (Advanced Tab) = Changed to Black and White from Color.

### Declaration of Yield

#### Inkjet Cartridge Yield when tested in Kodak ESP-7 All-in-One Printer:

Using the test suite defined in ISO/IEC 24712 provides the following results:

Average K (Black) Cartridge Yield – Up to 342 standard pages

Average Color Cartridge Yield – Up to 385 standard pages

Using the test page defined in ISO/IEC 19752 provides the following results:

Average K (Black) Cartridge Yield – Up to 542 standard pages

Estimated supplemental Color Cartridge Yield – Up to 4,332 standard pages

Values obtained by continuous printing. Declared yield values in accordance with ISO/IEC 24711

Using 24712 Test Suite						
Cartridge Identifier	Color	Average (pages)	Standard Deviation (pages)	90% Lower Confidence (pages)	Number used in calculations/test	Primary/ Supplemental
Black Ink Cartridge 10	K (Black)	347	8	342	9/13	Primary
Color Ink Cartridge 10	Color	390	9	385	9/10	Primary

Using 19752 Test Page						
Cartridge Identifier	Color	Average (pages)	Standard Deviation (pages)	90% Lower Confidence (pages)	Number used in calculations/test	Primary/ Supplemental
Black Ink Cartridge 10	K (Black)	548	18	542	23/25	Primary
Color Ink Cartridge 10	Color	4,358	15	4,332	3/4	Supplemental

<b>Printer Identifier</b>	<b>ESP-7 All-in-One Printer</b>
Printer Manufacturer	Kodak
Cartridge Identifier	Black Ink Cartridge 10 & Color Ink Cartridge 10
Cartridge Type	Separate ink supply and print head
Date Tested	March 19, 2009 to April 10, 2009
EOL Criteria	This printer has Ink Out which stops printing. Whichever came first, either Ink Out or Fade, was used as the EOL criteria.
Print mode used	Continuous
Paper Size	4" x 6" borderless photo on 8 ½" x 11" photo paper
Media used	KODAK Ultra Premium Photo Paper High Gloss
Driver version	DriverVer=07/18/2008, 2.07.151.0

**Declaration of Yield**

**Inkjet Cartridge Yield when tested in Kodak ESP-7 All-in-One Printer:**

Using the QualityLogic Color Photo test suite provides the following results:

Average Color Cartridge Yield – Up to 174 standard pages

Estimated supplemental K (Black) Cartridge Yield – Up to 1,546 standard pages

Values obtained by continuous printing. Declared yield values in accordance with QualityLogic Color Photo Yield Test Methodology

Cartridge Identifier	Color	Average (pages)	Standard Deviation (pages)	90% Lower Confidence (pages)	Number used in calculations/test	Primary/ Supplemental
Color Ink Cartridge 10	Color	174	1	174	9/10	Primary
Black Ink Cartridge 10	K (Black)	1,591	26	1,546	3/4	Supplemental

Test results and cost information provided by QualityLogic. Tests were performed under laboratory conditions and end-user's results may vary. Test results, ink cartridge pricing and cost per page pricing subject to change without notice by QualityLogic. All test results and cost information are provided "as-is," "as available," and all warranties, expressed or implied are hereby disclaimed. Users of the information contained herein assume full responsibility and risk of loss resulting from usage thereof.

<b>Printer Identifier</b>	<b>ESP-9 All-in-One Printer</b>
Printer Manufacturer	Kodak
Cartridge Identifier	Black Ink Cartridge 10 & Color Ink Cartridge 10
Cartridge Type	Separate ink supply and print head
Date Tested	April 13, 2009 to April 24, 2009
EOL Criteria	This printer has Ink Out which stops printing. Whichever came first, either Ink Out or Fade, was used as the EOL criteria.
Print mode used	Continuous
Paper Size	Letter
Media used	Xerox Business 4200, 92 Brightness, 20lb. weight
Driver version	DriverVer=08/21/2008,3.1.3.0 Mono Ink Test: Print colors as (Advanced Tab) = Changed to Black and White from Color.

### Declaration of Yield

#### Inkjet Cartridge Yield when tested in Kodak ESP-9 All-in-One Printer:

Using the test suite defined in ISO/IEC 24712 provides the following results:

Average K (Black) Cartridge Yield – Up to 342 standard pages

Average Color Cartridge Yield – Up to 385 standard pages

Using the test page defined in ISO/IEC 19752 provides the following results:

Average K (Black) Cartridge Yield – Up to 539 standard pages

Estimated supplemental Color Cartridge Yield – Up to 4,357 standard pages

Values obtained by continuous printing. Declared yield values in accordance with ISO/IEC 24711

#### Using 24712 Test Suite

Cartridge Identifier	Color	Average (pages)	Standard Deviation (pages)	90% Lower Confidence (pages)	Number used in calculations/test	Primary/ Supplemental
Black Ink Cartridge 10	K (Black)	346	7	342	9/15	Primary
Color Ink Cartridge 10	Color	392	11	385	9/12	Primary

#### Using 19752 Test Page

Cartridge Identifier	Color	Average (pages)	Standard Deviation (pages)	90% Lower Confidence (pages)	Number used in calculations/test	Primary/ Supplemental
Black Ink Cartridge 10	K (Black)	546	19	539	24/24	Primary
Color Ink Cartridge 10	Color	4,365	5	4,357	3/3	Supplemental

<b>Printer Identifier</b>	<b>ESP-9 All-in-One Printer</b>
Printer Manufacturer	Kodak
Cartridge Identifier	Black Ink Cartridge 10 & Color Ink Cartridge 10
Cartridge Type	Separate ink supply and print head
Date Tested	April 24, 2009 to April 28, 2009
EOL Criteria	This printer has Ink Out which stops printing. Whichever came first, either Ink Out or Fade, was used as the EOL criteria.
Print mode used	Continuous
Paper Size	4" x 6" borderless photo on 8 ½" x 11" photo paper
Media used	KODAK Ultra Premium Photo Paper High Gloss
Driver version	DriverVer=08/21/2008,3.1.3.0

**Declaration of Yield**

**Inkjet Cartridge Yield when tested in Kodak ESP-9 All-in-One Printer:**

Using the QualityLogic Color Photo test suite provides the following results:

Average Color Cartridge Yield – Up to 174 standard pages

Estimated supplemental K (Black) Cartridge Yield – Up to 1,405 standard pages

Values obtained by continuous printing. Declared yield values in accordance with QualityLogic Color Photo Yield Test Methodology

Cartridge Identifier	Color	Average (pages)	Standard Deviation (pages)	90% Lower Confidence (pages)	Number used in calculations/test	Primary/ Supplemental
Color Ink Cartridge 10	Color	175	2	174	9/9	Primary
Black Ink Cartridge 10	K (Black)	1,718	185	1,405	3/3	Supplemental

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<b>Printer Identifier</b>	<b>Brother MFC-5490cn</b>
Printer Manufacturer	Brother
Cartridge Identifier	LC61BK, LC61C, LC61M, LC61Y
Cartridge Type	Separate ink supply and print head
Date Tested	March 23, 2009 to March 31, 2009
EOL Criteria	This printer has Ink Out which stops printing. Whichever came first, either Ink Out or Fade, was used as the EOL criteria.
Print mode used	Continuous
Paper Size	Letter
Media used	Xerox Business 4200, 92 Brightness 20lb. weight
Driver version	Driver Version= Brother MFC-5490CN Printer Version 5.02/Version 5.1 (Build 2600 Service pack 3)

### Declaration of Yield

#### Inkjet Cartridge Yield when tested in Brother MFC-5490cn:

Using the test suite defined in ISO/IEC 24712 provides the following results:

- Average K (Black) Cartridge Yield – Up to 521 standard pages
- Average Cyan Cartridge Yield – Up to 448 standard pages
- Average Magenta Cartridge Yield – Up to 360 standard pages
- Average Yellow Cartridge Yield – Up to 326 standard pages

Using the test page defined in ISO/IEC 19752 provides the following results:

- Average K (Black) Cartridge Yield – Up to 568 standard pages
- Estimated supplemental Cyan Cartridge Yield – Up to 7,056 standard pages
- Estimated supplemental Magenta Cartridge Yield – Up to 8,572 standard pages
- Estimated supplemental Yellow Cartridge Yield – Up to 7,709 standard pages

Values obtained by continuous printing. Declared yield value in accordance with ISO/IEC 24711.

Using 24712 Test Suite						
Cartridge Identifier	Color	Average (pages)	Standard Deviation (pages)	90% Lower Confidence (pages)	Number used in calculations/test	Primary/ Supplemental
LC61BK	K (Black)	529	14	521	9/12	Primary
LC61C	Cyan	462	22	448	9/15	Primary
LC61M	Magenta	368	14	360	12/18	Primary
LC61Y	Yellow	331	9	326	12/18	Primary

Using 19752 Test Page						
Cartridge Identifier	Color	Average (pages)	Standard Deviation (pages)	90% Lower Confidence (pages)	Number used in calculations/test	Primary/ Supplemental
LC61BK	K (Black)	592	38	568	9/9	Primary
LC61C	Cyan	9,059	1,188	7,056	3/3	Supplemental
LC61M	Magenta	13,211	2,752	8,572	3/3	Supplemental
LC61Y	Yellow	11,236	2,092	7,709	3/3	Supplemental

<b>Printer Identifier</b>	<b>Brother MFC-5490cn</b>
Printer Manufacturer	Brother
Cartridge Identifier	LC61BK, LC61C, LC61M, LC61Y
Cartridge Type	Separate ink supply and print head
Date Tested	March 31, 2009 to April 2, 2009
EOL Criteria	This printer has Ink Out which stops printing. Whichever came first, either Ink Out or Fade, was used as the EOL criteria.
Print mode used	Continuous
Paper Size	4" x 6" borderless photo on 8 ½" x 11" photo paper
Media used	Brother Premium Glossy Photo Paper (BP61GLL)
Driver version	Driver Version= Brother MFC-5490CN Printer Version 5.02/Version 5.1 (Build 2600 Service pack 3) The following driver settings were changed from default: Media Type = Changed to BP61 Photo Paper from Plain Paper.

### Declaration of Yield

#### Inkjet Cartridge Yield when tested in Brother MFC-5490cn:

Using the QualityLogic Color Photo test suite provides the following results:

- Average Cyan Cartridge Yield – Up to 88 standard pages
- Average Magenta Cartridge Yield – Up to 110 standard pages
- Average Yellow Cartridge Yield – Up to 91 standard pages
- Estimated supplemental K (Black) Cartridge Yield – Up to 24,117 standard pages

Values obtained by continuous printing. Declared yield value in accordance with QualityLogic Color Photo Cartridge Yield Test Methodology.

Cartridge Identifier	Color	Average (pages)	Standard Deviation (pages)	90% Lower Confidence (pages)	Number used in calculations/test	Primary/ Supplemental
LC61C	Cyan	92	6	88	10/14	Primary
LC61M	Magenta	117	10	110	9/9	Primary
LC61Y	Yellow	93	4	91	10/13	Primary
LC61BK	K (Black)	32,665	5,071	24,117	3/3	Supplemental

<b>Printer Identifier</b>	<b>Canon PIXMA MP210</b>
Printer Manufacturer	Canon
Cartridge Identifier	PG-30 & CL-31
Cartridge Type	Integral ink supply and print head
Date Tested	September 4, 2008 to September 10, 2008
EOL Criteria	Fade
Print mode used	Continuous
Paper Size	Letter
Media used	Xerox Business 4200, 92 Brightness, 20lb. weight
Driver version	DriverVer=02/06/2008, 2.10.2.11

## Declaration of Yield

### Inkjet Cartridge Yield when tested in Canon PIXMA MP210:

Using the test suite defined in ISO/IEC 24712 provides the following results:

Average K (Black) Cartridge Yield: Up to 232 standard pages

Average Tri-color Cartridge Yield: Up to 233 standard pages

Using the test page defined in ISO/IEC 19752 provides the following results:

Average K (Black) Cartridge Yield: Up to 230 standard pages

Estimated supplemental Tri-color Cartridge Yield: Up to 1,114 standard pages

Values obtained by continuous printing. Declared yield value in accordance with ISO/IEC 24711.

Using 24712 Test Suite						
Cartridge Identifier	Color	Average (pages)	Standard Deviation (pages)	90% Lower Confidence (pages)	Number used in calculations/test	Primary/ Supplemental
PG-30	K (Black)	237	7	232	9/15	Primary
CL-31	Tri-color	243	16	233	9/12	Primary

Using 19752 Test Page						
Cartridge Identifier	Color	Average (pages)	Standard Deviation (pages)	90% Lower Confidence (pages)	Number used in calculations/test	Primary/ Supplemental
PG-30	K (Black)	242	19	230	9/9	Primary
CL-31	Tri-color	1,194	47	1,114	3/3	Supplemental

<b>Printer Identifier</b>	<b>Canon PIXMA MP210</b>
Printer Manufacturer	Canon
Cartridge Identifier	PG-30 & CL-31
Cartridge Type	Integral ink supply and print head
Date Tested	September 11, 2008 to September 12, 2008
EOL Criteria	Fade
Print mode used	Continuous
Paper Size	4" x 6" borderless photo on 8 ½" x 11" photo paper
Media used	Canon Photo Paper Plus Glossy, PP-101
Driver version	DriverVer=02/06/2008, 2.10.2.11 The following driver settings were changed from default: Media Type = Photo Paper Plus Glossy from Plain Paper Print Quality = High from Standard

### Declaration of Yield

#### Inkjet Cartridge Yield when tested in Canon PIXMA MP210:

Using the QualityLogic Color Photo Suite:

Average Tri-color Cartridge Yield: Up to 89 standard pages

Estimated supplemental K (Black) Cartridge Yield: Up to 949 standard pages

Values obtained by continuous printing. Declared yield value in accordance with QualityLogic Color Photo Cartridge Yield Test Methodology.

Cartridge Identifier	Color	Average (pages)	Standard Deviation (pages)	90% Lower Confidence (pages)	Number used in calculations/test	Primary/ Supplemental
CL-31	Tri-color	91	3	89	9/9	Primary
PG-30	K (Black)	1,002	31	949	3/3	Supplemental

<b>Printer Identifier</b>	<b>Canon PIXMA MP470</b>
Printer Manufacturer	Canon
Cartridge Identifier	PG-40, CL-41
Cartridge Type	Integral ink supply and print head
Date Tested	October 16, 2007 to October 18, 2007
EOL Criteria	Fade was used as the EOL criteria.
Print mode used	Continuous
Paper Size	Letter
Media used	Xerox Business 4200, 92 Brightness 20lb. weight
Driver version	DriverVer=04/02/2007, 2.10.2.30 The driver default settings were used for testing.

### Declaration of Yield

#### Inkjet Cartridge Yield when tested in Canon PIXMA MP470:

Using the test suite defined in ISO/IEC 24712 provides the following results:

- Average K (Black) Cartridge Yield – Up to 346 standard pages
- Average Tri-color Cartridge Yield – Up to 333 standard pages

Using the test page defined in ISO/IEC 19752 provides the following results:

- Average K (Black) Cartridge Yield – Up to 358 standard pages
- Estimated supplemental Tri-color Cartridge Yield – Up to 2,588 standard pages

Values obtained by continuous printing. Declared yield value in accordance with ISO/IEC 24711.

Using 24712 Test Suite						
Cartridge Identifier	Color	Average (pages)	Standard Deviation (pages)	90% Lower Confidence (pages)	Number used in calculations/test	Primary/ Supplemental
PG-40	K (Black)	351	8	346	9/12	Primary
CL-41	Tri-color	339	10	333	9/15	Primary

Using 19752 Test Page						
Cartridge Identifier	Color	Average (pages)	Standard Deviation (pages)	90% Lower Confidence (pages)	Number used in calculations/test	Primary/ Supplemental
PG-40	K (Black)	364	10	358	9/9	Primary
CL-41	Tri-color	2,763	104	2,588	3/3	Supplemental

Test results and cost information provided by QualityLogic. Tests were performed under laboratory conditions and end-user's results may vary. Test results, ink cartridge pricing and cost per page pricing subject to change without notice by QualityLogic. All test results and cost information are provided "as-is," "as available," and all warranties, expressed or implied are hereby disclaimed. Users of the information contained herein assume full responsibility and risk of loss resulting from usage thereof.

<b>Printer Identifier</b>	<b>Canon PIXMA MP470</b>
Printer Manufacturer	Canon
Cartridge Identifier	PG-40, CL-41
Cartridge Type	Integral ink supply and print head
Date Tested	October 18, 2007 to October 19, 2007
EOL Criteria	Fade was used as the EOL criteria.
Print mode used	Continuous
Paper Size	4" x 6" borderless photo on 8 ½" x 11" photo
Media used	Canon Photo Paper Plus Glossy, PP-101
Driver version	DriverVer=04/02/2007, 2.10.2.30 The following driver settings were changed from default: Media Type = Changed to Photo Paper Plus Glossy from Plain Paper Print Quality = Changed to High from Standard

### Declaration of Yield

#### Inkjet Cartridge Yield when tested in Canon PIXMA MP470:

Using the QualityLogic Color Photo Suite:

Average Tri-color Cartridge Yield – Up to 113 standard pages

Estimated supplemental K (Black) Cartridge Yield – Up to 1,637 standard pages

Values obtained by continuous printing. Declared yield value in accordance with QualityLogic Color Photo Cartridge Yield Test Methodology.

Cartridge Identifier	Color	Average (pages)	Standard Deviation (pages)	90% Lower Confidence (pages)	Number used in calculations/test	Primary/ Supplemental
CL-41	Tri-color	115	3	113	9/9	Primary
PG-40	K (Black)	1,697	35	1,637	3/3	Supplemental

<b>Printer Identifier</b>	<b>Canon PIXMA MP620</b>
Printer Manufacturer	Canon
Cartridge Identifier	PGI-220BK, CLI-221C, CLI-221Y, CLI-221M, CLI-221BK
Cartridge Type	Separate ink supply and print head
Date Tested	October 8, 2008 to October 14, 2008
EOL Criteria	This printer has Ink Out which stops printing. Whichever came first, either Ink Out or Fade, was used as the EOL criteria.
Print mode used	Continuous
Paper Size	Letter
Media used	Xerox Business 4200, 92 Brightness 20lb. weight
Driver version	DriverVer=06/12/2008, 2.21.2.20

## Declaration of Yield

### Inkjet Cartridge Yield when tested in Canon PIXMA MP620:

Using the test suite defined in ISO/IEC 24712 provides the following results:

- Average K (Pigment Black) Cartridge Yield – Up to 344 standard pages
- Average Cyan Cartridge Yield – Up to 565 standard pages
- Average Magenta Cartridge Yield – Up to 539 standard pages
- Average Yellow Cartridge Yield – Up to 546 standard pages
- Estimated supplemental K (Black) Cartridge Yield – Up to 5,141 standard pages

Using the test page defined in ISO/IEC 19752 provides the following results:

- Average K (Pigment Black) Cartridge Yield – Up to 366 standard pages
- Estimated supplemental Cyan Cartridge Yield – Up to 3,228 standard pages
- Estimated supplemental Magenta Cartridge Yield – Up to 3,498 standard pages
- Estimated supplemental Yellow Cartridge Yield – Up to 4,551 standard pages
- Estimated supplemental K (Black) Cartridge Yield – Up to 6,866 standard pages

Values obtained by continuous printing. Declared yield values in accordance with ISO/IEC 24711

Using 24712 Test Suite						
Cartridge Identifier	Color	Average (pages)	Standard Deviation (pages)	90% Lower Confidence (pages)	Number used in calculations/test	Primary/ Supplemental
PGI-220BK	K (Pigment Black)	348	7	344	13/19	Primary
CLI-221C	Cyan	583	30	565	9/12	Primary
CLI-221M	Magenta	549	16	539	9/15	Primary
CLI-221Y	Yellow	558	19	546	9/15	Primary
CLI-221BK	K (Black)	5,986	501	5,141	3/6	Supplemental

Using 19752 Test Page						
Cartridge Identifier	Color	Average (pages)	Standard Deviation (pages)	90% Lower Confidence (pages)	Number used in calculations/test	Primary/ Supplemental
PGI-220BK	K (Pigment Black)	374	12	366	9/9	Primary
CLI-221C	Cyan	3,289	36	3,228	3/3	Supplemental
CLI-221M	Magenta	3,597	59	3,498	3/3	Supplemental
CLI-221Y	Yellow	4,726	104	4,551	3/3	Supplemental
CLI-221BK	K (Black)	7,115	148	6,866	3/3	Supplemental

<b>Printer Identifier</b>	<b>Canon PIXMA MP620</b>
Printer Manufacturer	Canon
Cartridge Identifier	PGI-220BK, CLI-221C, CLI-221Y, CLI-221M, CLI-221BK
Cartridge Type	Separate ink supply and print head
Date Tested	October 15, 2008 to October 17, 2008
EOL Criteria	This printer has Ink Out which stops printing. Whichever came first, either Ink Out or Fade, was used as the EOL criteria.
Print mode used	Continuous
Paper Size	4" x 6" borderless photo on 8 ½" x 11" photo paper
Media used	Canon Photo Paper Plus Glossy II, (PP-201)
Driver version	DriverVer=06/12/2008, 2.21.2.20 The following driver settings were changed from default: Media Type = Changed to Photo Paper Plus Glossy II from Plain Paper Print Quality = Changed to High from Standard

## Declaration of Yield

### Inkjet Cartridge Yield when tested in Canon PIXMA MP620:

Using the QualityLogic Color Photo test suite provides the following results:

- Average Cyan Cartridge Yield – Up to 201 standard pages
- Average Magenta Cartridge Yield – Up to 217 standard pages
- Average Yellow Cartridge Yield – Up to 213 standard pages
- Estimated supplemental K (Black) Cartridge Yield – Up to 610 standard pages
- Estimated supplemental K (Pigment Black) Cartridge Yield – Up to 1,952 standard pages

Values obtained by continuous printing. Declared yield values in accordance with QualityLogic Color Photo Yield Test Methodology

Cartridge Identifier	Color	Average (pages)	Standard Deviation (pages)	90% Lower Confidence (pages)	Number used in calculations/test	Primary/ Supplemental
CLI-221C	Cyan	204	6	201	9/12	Primary
CLI-221M	Magenta	222	8	217	9/10	Primary
CLI-221Y	Yellow	219	9	213	9/11	Primary
CLI-221BK	K (Black)	658	29	610	3/4	Supplemental
PGI-220BK	K (Pigment Black)	2,015	37	1,952	3/3	Supplemental

<b>Printer Identifier</b>	<b>Canon PIXMA MX700</b>
Printer Manufacturer	Canon
Cartridge Identifier	PGI-5BK, CLI-8C, CLI-8M, CLI-8Y
Cartridge Type	Separate ink supply and print head
Date Tested	March 6, 2009 to March 18, 2009
EOL Criteria	This printer has Ink Out which stops printing. Whichever came first, either Ink Out or Fade, was used as the EOL criteria.
Print mode used	Continuous
Paper Size	Letter
Media used	Xerox Business 4200, 92 Brightness 20lb. weight
Driver version	DriverVer=05/22/2007, 2.11.2.20

## Declaration of Yield

### Inkjet Cartridge Yield when tested in Canon PIXMA MX700:

Using the test suite defined in ISO/IEC 24712 provides the following results:

- Average K (Black) Cartridge Yield – Up to 488 standard pages
- Average Cyan Cartridge Yield – Up to 873 standard pages
- Average Magenta Cartridge Yield – Up to 676 standard pages
- Average Yellow Cartridge Yield – Up to 691 standard pages

Using the test page defined in ISO/IEC 19752 provides the following results:

- Average K (Black) Cartridge Yield – Up to 533 standard pages
- Estimated supplemental Cyan Cartridge Yield – Up to 7,768 standard pages
- Estimated supplemental Magenta Cartridge Yield – Up to 7,161 standard pages
- Estimated supplemental Yellow Cartridge Yield – Up to 9,551 standard pages

Values obtained by continuous printing. Declared yield values in accordance with ISO/IEC 24711

Using 24712 Test Suite						
Cartridge Identifier	Color	Average (pages)	Standard Deviation (pages)	90% Lower Confidence (pages)	Number used in calculations/test	Primary/ Supplemental
PGI-5BK	K (Black)	493	11	488	15/21	Primary
CLI-8C	Cyan	897	38	873	9/12	Primary
CLI-8M	Magenta	688	20	676	9/15	Primary
CLI-8Y	Yellow	699	14	691	9/15	Primary

Using 19752 Test Page						
Cartridge Identifier	Color	Average (pages)	Standard Deviation (pages)	90% Lower Confidence (pages)	Number used in calculations/test	Primary/ Supplemental
PGI-5BK	K (Black)	541	12	533	9/9	Primary
CLI-8C	Cyan	8,143	223	7,768	3/3	Supplemental
CLI-8M	Magenta	7,228	40	7,161	3/3	Supplemental
CLI-8Y	Yellow	9,792	143	9,551	3/3	Supplemental

<b>Printer Identifier</b>	<b>Canon PIXMA MX700</b>
Printer Manufacturer	Canon
Cartridge Identifier	PGI-5BK, CLI-8C, CLI-8M, CLI-8Y
Cartridge Type	Separate ink supply and print head
Date Tested	March 18, 2009 to March 25, 2009
EOL Criteria	This printer has Ink Out which stops printing. Whichever came first, either Ink Out or Fade, was used as the EOL criteria.
Print mode used	Continuous
Paper Size	4" x 6" borderless photo on 8 ½" x 11" photo paper
Media used	Canon Photo Paper Plus Glossy II, (PP-201)
Driver version	DriverVer=05/22/2007, 2.11.2.20 The following driver settings were changed from default: Media Type = Changed to Photo Paper Plus Glossy II from Plain Paper. Paper Source = Changed to Rear Tray from Paper Feed Switch. Print Quality = Changed to High from Standard.

## Declaration of Yield

### Inkjet Cartridge Yield when tested in Canon PIXMA MX700:

Using the QualityLogic Color Photo test suite provides the following results:

- Average Cyan Cartridge Yield – Up to 348 standard pages
- Average Magenta Cartridge Yield – Up to 248 standard pages
- Average Yellow Cartridge Yield – Up to 276 standard pages
- Estimated supplemental K (Black) Cartridge Yield – Up to 2,809 standard pages

Values obtained by continuous printing. Declared yield values in accordance with QualityLogic Color Photo Yield Test Methodology

Cartridge Identifier	Color	Average (pages)	Standard Deviation (pages)	90% Lower Confidence (pages)	Number used in calculations/test	Primary/ Supplemental
CLI-8C	Cyan	354	10	348	9/9	Primary
CLI-8M	Magenta	252	7	248	12/15	Primary
CLI-8Y	Yellow	280	6	276	9/12	Primary
PGI-5BK	K (Black)	2,901	55	2,809	3/3	Supplemental

<b>Printer Identifier</b>	<b>Epson Artisan 800</b>
Printer Manufacturer	Epson
Cartridge Identifier	T0981, T0992, T0993, T0994, T0995, T0996
Cartridge Type	Separate ink supply and print head
Date Tested	September 23, 2008 to October 1, 2008
EOL Criteria	This printer has Ink Out which stops printing. Whichever came first, either Ink Out or Fade, was used as the EOL criteria.
Print mode used	Continuous
Paper Size	Letter
Media used	Xerox Business 4200, 92 Brightness 20lb. weight
Driver version	Driver Version= Epson Color Printing System 6.62

## Declaration of Yield

### Inkjet Cartridge Yield when tested in Epson Artisan 800:

Using the test suite defined in ISO/IEC 24712 provides the following results:

- Average K (Black) Cartridge Yield – Up to 574 standard pages
- Average Cyan Cartridge Yield – Up to 969 standard pages
- Average Magenta Cartridge Yield – Up to 453 standard pages
- Average Yellow Cartridge Yield – Up to 674 standard pages
- Average supplemental Light Cyan Cartridge Yield – Up to 340 standard pages
- Average supplemental Light Magenta Cartridge Yield – Up to 668 standard pages

Using the test page defined in ISO/IEC 19752 provides the following results:

- Average K (Black) Cartridge Yield – Up to 601 standard pages
- Estimated supplemental Cyan Cartridge Yield – Up to 1,971 standard pages
- Estimated supplemental Magenta Cartridge Yield – Up to 1,915 standard pages
- Estimated supplemental Yellow Cartridge Yield – Up to 6,642 standard pages
- Estimated supplemental Light Cyan Cartridge Yield – Up to 1,891 standard pages
- Estimated supplemental Light Magenta Cartridge Yield – Up to 2,321 standard pages

Values obtained by continuous printing. Declared yield values in accordance with ISO/IEC 24711

Using 24712 Test Suite						
Cartridge Identifier	Color	Average (pages)	Standard Deviation (pages)	90% Lower Confidence (pages)	Number used in calculations/test	Primary/ Supplemental
T0981	K (Black)	580	14	574	15/21	Primary
T0992	Cyan	989	32	969	9/12	Primary
T0993	Magenta	461	20	453	18/24	Primary
T0994	Yellow	690	30	674	12/18	Primary
T0995	Light Cyan	344	11	340	24/30	Supplemental
T0996	Light Magenta	680	23	668	12/18	Supplemental

Using 19752 Test Page						
Cartridge Identifier	Color	Average (pages)	Standard Deviation (pages)	90% Lower Confidence (pages)	Number used in calculations/test	Primary/ Supplemental
T0981	K (Black)	609	13	601	9/9	Primary
T0992	Cyan	2,138	99	1,971	3/3	Supplemental
T0993	Magenta	2,193	165	1,915	3/3	Supplemental
T0994	Yellow	6,793	89	6,642	3/3	Supplemental
T9005	Light Cyan	1,999	64	1,891	3/3	Supplemental
T0996	Light Magenta	2,532	125	2,321	3/3	Supplemental

Test results and cost information provided by QualityLogic. Tests were performed under laboratory conditions and end-user's results may vary. Test results, ink cartridge pricing and cost per page pricing subject to change without notice by QualityLogic. All test results and cost information are provided "as-is," "as available," and all warranties, expressed or implied are hereby disclaimed. Users of the information contained herein assume full responsibility and risk of loss resulting from usage thereof.

<b>Printer Identifier</b>	<b>Epson Artisan 800</b>
Printer Manufacturer	Epson
Cartridge Identifier	T0981, T0992, T0993, T0994, T0995, T0996
Cartridge Type	Separate ink supply and print head
Date Tested	October 1, 2008 to October 8, 2008
EOL Criteria	This printer has Ink Out which stops printing. Whichever came first, either Ink Out or Fade, was used as the EOL criteria.
Print mode used	Continuous
Paper Size	4" x 6" borderless photo on 8 ½" x 11" photo paper
Media used	Epson Ultra Premium Photo Paper, Glossy (S042175)
Driver version	Driver Version= Epson Color Printing System 6.62 Paper and Quality Options = Changed to Ultra Premium Photo Paper Glossy from Plain Paper / Bright White Paper Changed to Photo RPM (Max dpi) from Normal

## Declaration of Yield

### Inkjet Cartridge Yield when tested in Epson Artisan 800:

Using the QualityLogic Color Photo test suite provides the following results:

- Average Cyan Cartridge Yield – Up to 496 standard pages
- Average Magenta Cartridge Yield – Up to 357 standard pages
- Average Yellow Cartridge Yield – Up to 241 standard pages
- Average Light Cyan Cartridge Yield – Up to 102 standard pages
- Average Light Magenta Cartridge Yield – Up to 112 standard pages
- Estimated supplemental K (Black) Cartridge Yield – Up to 593 standard pages

Values obtained by continuous printing. Declared yield values in accordance with QualityLogic Color Photo Yield Test Methodology

Cartridge Identifier	Color	Average (pages)	Standard Deviation (pages)	90% Lower Confidence (pages)	Number used in calculations/test	Primary/ Supplemental
T0992	Cyan	505	15	496	9/9	Primary
T0993	Magenta	364	12	357	12/15	Primary
T0994	Yellow	245	8	241	17/20	Primary
T0995	Light Cyan	102	3	102	43/45	Primary
T0996	Light Magenta	113	4	112	40/43	Primary
T0981	K (Black)	634	50	593	6/9	Supplemental

<b>Printer Identifier</b>	<b>Epson Stylus NX400</b>
Printer Manufacturer	Epson
Cartridge Identifier	T0691, T0692, T0693, T0694
Cartridge Type	Separate ink supply and print head
Date Tested	September 4, 2008 to September 12, 2008
EOL Criteria	This printer has Ink Out which stops printing. Whichever came first, either Ink Out or Fade, was used as the EOL criteria.
Print mode used	Continuous
Paper Size	Letter
Media used	Xerox Business 4200, 92 Brightness 20lb. weight
Driver version	Driverver=02/26/2008, 6.60.00.00 The following driver settings were changed from default: Color Ink test: None Mono Ink test: Quality Option = Changed to Text from Text & Image The "Black Ink Only" option was enabled in Print Options

## Declaration of Yield

### Inkjet Cartridge Yield when tested in Epson Stylus NX400:

Using the test suite defined in ISO/IEC 24712 provides the following results:

- Average K (Black) Cartridge Yield – Up to 255 standard pages
- Average Cyan Cartridge Yield – Up to 400 standard pages
- Average Magenta Cartridge Yield – Up to 299 standard pages
- Average Yellow Cartridge Yield – Up to 430 standard pages

Using the test page defined in ISO/IEC 19752 provides the following results:

- Average K (Black) Cartridge Yield – Up to 259 standard pages
- Estimated supplemental Cyan Cartridge Yield – Up to 1,237 standard pages
- Estimated supplemental Magenta Cartridge Yield – Up to 1,608 standard pages
- Estimated supplemental Yellow Cartridge Yield – Up to 1,541 standard pages

Values obtained by continuous printing. Declared yield values in accordance with ISO/IEC 24711

Using 24712 Test Suite						
Cartridge Identifier	Color	Average (pages)	Standard Deviation (pages)	90% Lower Confidence (pages)	Number used in calculations/test	Primary/ Supplemental
T0691	K (Black)	261	13	255	15/21	Primary
T0692	Cyan	413	20	400	9/15	Primary
T0693	Magenta	307	16	299	12/18	Primary
T0694	Yellow	444	22	430	9/12	Primary

Using 19752 Test Page						
Cartridge Identifier	Color	Average (pages)	Standard Deviation (pages)	90% Lower Confidence (pages)	Number used in calculations/test	Primary/ Supplemental
T0691	K (Black)	269	16	259	9/9	Primary
T0692	Cyan	1,698	274	1,237	3/3	Supplemental
T0693	Magenta	2,440	494	1,608	3/3	Supplemental
T0694	Yellow	2,439	532	1,541	3/3	Supplemental

<b>Printer Identifier</b>	<b>Epson Stylus NX400</b>
Printer Manufacturer	Epson
Cartridge Identifier	T0691, T0692, T0693, T0694
Cartridge Type	Separate ink supply and print head
Date Tested	September 12, 2008 to September 19, 2008
EOL Criteria	This printer has Ink Out which stops printing. Whichever came first, either Ink Out or Fade, was used as the EOL criteria.
Print mode used	Continuous
Paper Size	4" x 6" borderless photo on 8 ½" x 11" photo paper
Media used	Epson Premium Photo Paper, Glossy (S041286)
Driver version	Driverver=02/26/2008, 6.60.00.00 The following driver settings were changed from default: Paper Options Type = Changed to Premium Photo Paper Glossy from Plain Paper / Bright White paper Quality Option = Changed to Photo RPM (Max dpi) from Text & Image

### Declaration of Yield

#### Inkjet Cartridge Yield when tested in Epson Stylus NX400:

Using the QualityLogic Color Photo test suite provides the following results:

- Average Cyan Cartridge Yield – Up to 90 standard pages
- Average Magenta Cartridge Yield – Up to 91 standard pages
- Average Yellow Cartridge Yield – Up to 123 standard pages
- Estimated supplemental K (Black) Cartridge Yield – Up to 479 standard pages

Values obtained by continuous printing. Declared yield values in accordance with QualityLogic Color Photo Yield Test Methodology

Cartridge Identifier	Color	Average (pages)	Standard Deviation (pages)	90% Lower Confidence (pages)	Number used in calculations/test	Primary/ Supplemental
T0692	Cyan	95	8	90	12/15	Primary
T0693	Magenta	95	7	91	11/13	Primary
T0694	Yellow	128	8	123	9/9	Primary
T0691	K (Black)	527	29	479	3/3	Supplemental

<b>Printer Identifier</b>	<b>Epson Stylus CX8400</b>
Printer Manufacturer	Epson
Cartridge Identifier	T0691, T0692, T0693, T0694
Cartridge Type	Separate ink supply and print head
Date Tested	October 18, 2007 to October 24, 2007
EOL Criteria	This printer has Ink Out which stops printing. Whichever came first, either Ink Out or Fade, was used as the EOL criteria.
Print mode used	Continuous
Paper Size	Letter
Media used	Xerox Business 4200, 92 Brightness 20lb. weight
Driver version	DriverVer=04/16/2007, 6.50.00 Color Ink test - The driver's default settings were used. Mono Ink Test - The following driver settings were changed from default: Quality Option = Changed to Text from Text & Image. The Black Ink Only option was enabled in the Advanced tab.

### Declaration of Yield

#### Inkjet Cartridge Yield when tested in Epson Stylus CX8400:

Using the test suite defined in ISO/IEC 24712 provides the following results:

- Average K (Black) Cartridge Yield – Up to 239 standard pages
- Average Cyan Cartridge Yield – Up to 349 standard pages
- Average Magenta Cartridge Yield – Up to 263 standard pages
- Average Yellow Cartridge Yield – Up to 395 standard pages

Using the test page defined in ISO/IEC 19752 provides the following results:

- Average K (Black) Cartridge Yield – Up to 240 standard pages
- Estimated supplemental Cyan Cartridge Yield – Up to 1,424 standard pages
- Estimated supplemental Magenta Cartridge Yield – Up to 2,257 standard pages
- Estimated supplemental Yellow Cartridge Yield – Up to 2,158 standard pages

Values obtained by continuous printing. Declared yield value in accordance with ISO/IEC 24711.

Using 24712 Test Suite						
Cartridge Identifier	Color	Average (pages)	Standard Deviation (pages)	90% Lower Confidence (pages)	Number used in calculations/test	Primary/ Supplemental
T0691	K (Black)	243	6	239	14/21	Primary
T0692	Cyan	373	38	349	9/15	Primary
T0693	Magenta	274	22	263	12/18	Primary
T0694	Yellow	412	26	395	9/12	Primary

Using 19752 Test Page						
Cartridge Identifier	Color	Average (pages)	Standard Deviation (pages)	90% Lower Confidence (pages)	Number used in calculations/test	Primary/ Supplemental
T0691	K (Black)	246	8	240	9/9	Primary
T0692	Cyan	1,517	55	1,424	3/3	Supplemental
T0693	Magenta	2,290	19	2,257	3/3	Supplemental
T0694	Yellow	2,334	104	2,158	3/3	Supplemental

Test results and cost information provided by QualityLogic. Tests were performed under laboratory conditions and end-user's results may vary. Test results, ink cartridge pricing and cost per page pricing subject to change without notice by QualityLogic. All test results and cost information are provided "as-is," "as available," and all warranties, expressed or implied are hereby disclaimed. Users of the information contained herein assume full responsibility and risk of loss resulting from usage thereof.

<b>Printer Identifier</b>	<b>Epson Stylus CX8400</b>
Printer Manufacturer	Epson
Cartridge Identifier	T0691, T0692, T0693, T0694
Cartridge Type	Separate ink supply and print head
Date Tested	October 25, 2007 to October 26, 2007
EOL Criteria	This printer has Ink Out which stops printing. Whichever came first, either Ink Out or Fade, was used as the EOL criteria.
Print mode used	Continuous
Paper Size	4" x 6" borderless photo on 8 ½" x 11" photo
Media used	Epson Premium Photo Paper Glossy (S041286)
Driver version	DriverVer=04/16/2007, 6.50.00.00 The following driver settings were changed from default: Quality Option = Changed to Best Photo from Text & Image. Paper Type = Changed to Premium Photo Paper Glossy from Plain Paper / Bright White Paper

### Declaration of Yield

#### Inkjet Cartridge Yield when tested in Epson Stylus CX8400:

Using the QualityLogic Color Photo test suite provides the following results:

- Average Cyan Cartridge Yield – Up to 93 standard pages
- Average Magenta Cartridge Yield – Up to 92 standard pages
- Average Yellow Cartridge Yield – Up to 120 standard pages
- Estimated supplemental K (Black) Cartridge Yield – Up to 812 standard pages

Values obtained by continuous printing. Declared yield value in accordance with QualityLogic Color Photo Cartridge Yield Test Methodology.

Cartridge Identifier	Color	Average (pages)	Standard Deviation (pages)	90% Lower Confidence (pages)	Number used in calculations/test	Primary/ Supplemental
T0692	Cyan	103	17	93	10/13	Primary
T0693	Magenta	94	4	92	10/13	Primary
T0694	Yellow	121	2	120	9/9	Primary
T0691	K (Black)	872	36	812	3/3	Supplemental

<b>Printer Identifier</b>	<b>Epson WorkForce 600</b>
Printer Manufacturer	Epson
Cartridge Identifier	T0971, T0692, T0693, T0694
Cartridge Type	Separate ink supply and print head
Date Tested	March 23, 2009 to March 30, 2009
EOL Criteria	This printer has Ink Out which stops printing. Whichever came first, either Ink Out or Fade, was used as the EOL criteria.
Print mode used	Continuous
Paper Size	Letter
Media used	Xerox Business 4200, 92 Brightness 20lb. weight
Driver version	Driver Version = Epson Color Printing System Version 6.61 The following driver settings were changed from default: Mono Ink test: The Black Ink Only option was enabled under the Advanced Tab.

### Declaration of Yield

#### Inkjet Cartridge Yield when tested in Epson WorkForce 600:

Using the test suite defined in ISO/IEC 24712 provides the following results:

- Average K (Black) Cartridge Yield – Up to 860 standard pages
- Average Cyan Cartridge Yield – Up to 400 standard pages
- Average Magenta Cartridge Yield – Up to 277 standard pages
- Average Yellow Cartridge Yield – Up to 417 standard pages

Using the test page defined in ISO/IEC 19752 provides the following results:

- Average K (Black) Cartridge Yield – Up to 973 standard pages
- Estimated supplemental Cyan Cartridge Yield – Up to 4,528 standard pages
- Estimated supplemental Magenta Cartridge Yield – Up to 7,539 standard pages
- Estimated supplemental Yellow Cartridge Yield – Up to 4,389 standard pages

Values obtained by continuous printing. Declared yield value in accordance with ISO/IEC 24711.

#### Using 24712 Test Suite

Cartridge Identifier	Color	Average (pages)	Standard Deviation (pages)	90% Lower Confidence (pages)	Number used in calculations/test	Primary/ Supplemental
T0971	K (Black)	869	16	860	9/12	Primary
T0692	Cyan	404	10	400	18/24	Primary
T0693	Magenta	280	9	277	27/33	Primary
T0694	Yellow	424	17	417	18/24	Primary

#### Using 19752 Test Page

Cartridge Identifier	Color	Average (pages)	Standard Deviation (pages)	90% Lower Confidence (pages)	Number used in calculations/test	Primary/ Supplemental
T0971	K (Black)	980	10	973	9/9	Primary
T0692	Cyan	4,556	17	4,528	3/3	Supplemental
T0693	Magenta	7,641	60	7,539	3/3	Supplemental
T0694	Yellow	4,562	103	4,389	3/3	Supplemental

<b>Printer Identifier</b>	<b>Epson WorkForce 600</b>
Printer Manufacturer	Epson
Cartridge Identifier	T0971, T0692, T0693, T0694
Cartridge Type	Separate ink supply and print head
Date Tested	March 31, 2009 to April 2, 2009
EOL Criteria	This printer has Ink Out which stops printing. Whichever came first, either Ink Out or Fade, was used as the EOL criteria.
Print mode used	Continuous
Paper Size	4" x 6" borderless photo on 8 ½" x 11" photo
Media used	Epson Ultra Premium Photo Paper Luster (S041405)
Driver version	Driver Version = Epson Color Printing System Version 6.61 The following driver settings were changed from default: Paper & Quality Options (Advanced tab) = Changed to Premium Photo Paper Glossy from Plain Paper / Bright White paper. Paper & Quality Options (Advanced tab) = Changed to Photo RPM (Max dpi) from Normal.

#### Declaration of Yield

#### Inkjet Cartridge Yield when tested in Epson WorkForce 600:

Using the QualityLogic Color Photo test suite provides the following results:

- Average Cyan Cartridge Yield – Up to 109 standard pages
- Average Magenta Cartridge Yield – Up to 106 standard pages
- Average Yellow Cartridge Yield – Up to 138 standard pages
- Estimated supplemental K (Black) Cartridge Yield – Up to 892 standard pages

Values obtained by continuous printing. Declared yield value in accordance with QualityLogic Color Photo Cartridge Yield Test Methodology.

Cartridge Identifier	Color	Average (pages)	Standard Deviation (pages)	90% Lower Confidence (pages)	Number used in calculations/test	Primary/ Supplemental
T0692	Cyan	113	6	109	9/12	Primary
T0693	Magenta	110	7	106	9/12	Primary
T0694	Yellow	143	9	138	9/9	Primary
T0971	K (Black)	997	62	892	3/3	Supplemental

<b>Printer Identifier</b>	<b>HP Photosmart C4480</b>
Printer Manufacturer	Hewlett-Packard
Cartridge Identifier	HP74, HP75
Cartridge Type	Integral ink supply and print head
Date Tested	April 13, 2009 to April 16, 2009
EOL Criteria	Fade
Print mode used	Continuous
Paper Size	Letter
Media used	Xerox Business 4200, 92 Brightness 20lb. weight
Driver version	Driver version = 61.73.245.0 The following driver settings were changed from default: Mono Ink test = "Print All Text as Black" was enabled on the Advanced tab.

### Declaration of Yield

#### Inkjet Cartridge Yield when tested in Hewlett-Packard Photosmart C4480:

Using the test suite defined in ISO/IEC 24712 provides the following results:

Average K (Black) Cartridge Yield – Up to 205 standard pages

Average Tri-color Cartridge Yield – Up to 180 standard pages

Using the test page defined in ISO/IEC 19752 provides the following results:

Average K (Black) Cartridge Yield – Up to 211 standard pages

Estimated supplemental Tri-color Cartridge Yield – Up to 1,575 standard pages

Values obtained by continuous printing. Declared yield values in accordance with ISO/IEC 24711

Using 24712 Test Suite						
Cartridge Identifier	Color	Average (pages)	Standard Deviation (pages)	90% Lower Confidence (pages)	Number used in calculations/test	Primary/ Supplemental
HP74	K (Black)	210	8	205	9/12	Primary
HP75	Tri-color	183	4	180	9/15	Primary

Using 19752 Test Page						
Cartridge Identifier	Color	Average (pages)	Standard Deviation (pages)	90% Lower Confidence (pages)	Number used in calculations/test	Primary/ Supplemental
HP74	K (Black)	216	7	211	9/9	Primary
HP75	Tri-color	1,699	74	1,575	3/3	Supplemental

<b>Printer Identifier</b>	<b>HP Photosmart C4480</b>
Printer Manufacturer	Hewlett-Packard
Cartridge Identifier	HP74, HP75
Cartridge Type	Integral ink supply and print head
Date Tested	April 16, 2009 to April 17, 2009
EOL Criteria	Fade
Print mode used	Continuous
Paper Size	4" x 6" borderless photo on 8 ½" x 11" photo paper
Media used	HP Premium Plus Photo Paper, High Gloss (Q1785A)
Driver version	Driver version = 61.73.245.0 The following driver settings were changed from default: Paper type = Changed to HP Premium Plus Photo papers from Plain paper.

### Declaration of Yield

#### **Inkjet Cartridge Yield when tested in Hewlett-Packard Photosmart C4480:**

Using the QualityLogic Color Photo test suite provides the following results:

Average Tri-color Cartridge Yield – Up to 52 standard pages

Estimated supplemental K (Black) Cartridge Yield – Up to 1,249 standard pages

Values obtained by continuous printing. Declared yield values in accordance with QualityLogic Color Photo Yield Test Methodology

Cartridge Identifier	Color	Average (pages)	Standard Deviation (pages)	90% Lower Confidence (pages)	Number used in calculations/test	Primary/ Supplemental
HP75	Tri-color	53	1	52	9/9	Primary
HP74	K (Black)	1,332	49	1,249	3/3	Supplemental

<b>Printer Identifier</b>	<b>HP Photosmart C5280</b>
Printer Manufacturer	Hewlett-Packard
Cartridge Identifier	HP74, HP75
Cartridge Type	Integral ink supply and print head
Date Tested	June 28, 2007 to July 5, 2007
EOL Criteria	Fade
Print mode used	Continuous
Paper Size	Letter
Media used	Xerox Business 4200, 92 Brightness 20lb. weight
Driver version	Driver Version = 3/15/2007,61.071.244.00 The driver's default setting was used: Quality = Normal Paper = Plain

### Declaration of Yield

#### Inkjet Cartridge Yield when tested in Hewlett-Packard Photosmart C5280:

Using the test suite defined in ISO/IEC 24712 provides the following results:

Average K (Black) Cartridge Yield – Up to 203 standard pages

Average Tri-color Cartridge Yield – Up to 169 standard pages

Using the test page defined in ISO/IEC 19752 provides the following results:

Average K (Black) Cartridge Yield – Up to 224 standard pages

Estimated supplemental Tri-color Cartridge Yield Up to 1,016 standard pages

Values obtained by continuous printing. Declared yield values in accordance with ISO/IEC 24711

#### Using 24712 Test Suite

Cartridge Identifier	Color	Average (pages)	Standard Deviation (pages)	90% Lower Confidence (pages)	Number used in calculations/test	Primary/ Supplemental
HP74	K (Black)	209	10	203	9/12	Primary
HP75	Tri-color	174	7	169	9/15	Primary

#### Using 19752 Test Page

Cartridge Identifier	Color	Average (pages)	Standard Deviation (pages)	90% Lower Confidence (pages)	Number used in calculations/test	Primary/ Supplemental
HP74	K (Black)	228	7	224	9/9	Primary
HP75	Tri-color	1,020	2	1,016	3/3	Supplemental

Test results and cost information provided by QualityLogic. Tests were performed under laboratory conditions and end-user's results may vary. Test results, ink cartridge pricing and cost per page pricing subject to change without notice by QualityLogic. All test results and cost information are provided "as-is," "as available," and all warranties, expressed or implied are hereby disclaimed. Users of the information contained herein assume full responsibility and risk of loss resulting from usage thereof.

<b>Printer Identifier</b>	<b>HP Photosmart C5280</b>
Printer Manufacturer	Hewlett-Packard
Cartridge Identifier	HP74, HP75
Cartridge Type	Integral ink supply and print head
Date Tested	July 6, 2007
EOL Criteria	Fade
Print mode used	Continuous
Paper Size	4" x 6" borderless photo on 8 ½" x 11" photo paper
Media used	HP Premium Plus High-gloss Photo Paper (Q1785A)
Driver version	Driver Version = 03/15/2007,61.071.244.00 The following settings were used: Photo printing-with white borders Print Quality = Best Paper Type = HP Premium Plus Photo Paper

### Declaration of Yield

#### Inkjet Cartridge Yield when tested in Hewlett-Packard Photosmart C5280:

Using the QualityLogic Color Photo test suite provides the following results:

Average Tri-color Cartridge Yield – Up to 48 standard pages

Estimated supplemental K (Black) Cartridge Yield – Up to 1,154 standard pages

Values obtained by continuous printing. Declared yield values in accordance with QualityLogic Color Photo Yield Test Methodology

Cartridge Identifier	Color	Average (pages)	Standard Deviation (pages)	90% Lower Confidence (pages)	Number used in calculations/test	Primary/ Supplemental
HP75	Tri-color	48	1	48	9/9	Primary
HP74	K (Black)	1,197	26	1,154	3/3	Supplemental

<b>Printer Identifier</b>	<b>HP Photosmart C6380</b>
Printer Manufacturer	Hewlett-Packard
Cartridge Identifier	HP564 - CB316WN, CB317WN, CB318WN, CB319WN, CB320WN
Cartridge Type	Separate ink supply and print head
Date Tested	September 11, 2008 to September 22, 2008
EOL Criteria	This printer has Ink Out which stops printing. Whichever came first, either Ink Out or Fade, was used as the EOL criteria.
Print mode used	Continuous
Paper Size	Letter
Media used	Xerox Business 4200, 92 Brightness 20lb. weight
Driver version	Driver Version = 61.81.2311.0 The following driver settings were changed from default: Color Ink Test: Paper type = Changed to Plain paper from Automatic Mono Ink Test: Paper type = Changed to Plain paper from Automatic Print all text as black was enabled in the Advanced tab.

## Declaration of Yield

### Inkjet Cartridge Yield when tested in HP Photosmart C6380 All-in One:

Using the test suite defined in ISO/IEC 24712 provides the following results:

- Average K (Black) Cartridge Yield – Up to 268 standard pages
- Average Cyan Cartridge Yield – Up to 291 standard pages
- Average Magenta Cartridge Yield – Up to 268 standard pages
- Average Yellow Cartridge Yield – Up to 231 standard pages
- Estimated supplemental K (Photo Black) Cartridge Yield – Up to 867 standard pages

Using the test page defined in ISO/IEC 19752 provides the following results:

- Average K (Black) Cartridge Yield – Up to 294 standard pages
- Estimated supplemental Cyan Cartridge Yield – Up to 2,411 standard pages
- Estimated supplemental Magenta Cartridge Yield – Up to 2,445 standard pages
- Estimated supplemental Yellow Cartridge Yield – Up to 2,520 standard pages
- Estimated supplemental K (Photo Black) Cartridge Yield – Up to 3,031 standard pages

Values obtained by continuous printing. Declared yield values in accordance with ISO/IEC 24711

Using 24712 Test Suite						
Cartridge Identifier	Color	Average (pages)	Standard Deviation (pages)	90% Lower Confidence (pages)	Number used in calculations/test	Primary/ Supplemental
HP 564 (CB316WN)	K (Black)	286	29	268	9/14	Primary
HP 564 (CB318WN)	Cyan	297	9	291	9/14	Primary
HP 564 (CB319WN)	Magenta	269	2	268	9/15	Primary
HP 564 (CB320WN)	Yellow	238	11	231	10/16	Primary
HP 564 (CB317WN)	K (Photo Black)	902	21	867	3/7	Supplemental

Using 19752 Test Page						
Cartridge Identifier	Color	Average (pages)	Standard Deviation (pages)	90% Lower Confidence (pages)	Number used in calculations/test	Primary/ Supplemental
HP 564 (CB316WN)	K (Black)	312	28	294	9/9	Primary
HP 564 (CB318WN)	Cyan	2,508	57	2,411	3/3	Supplemental
HP 564 (CB319WN)	Magenta	2,526	47	2,445	3/3	Supplemental
HP 564 (CB320WN)	Yellow	2,621	59	2,520	3/3	Supplemental
HP 564 (CB317WN)	K (Photo Black)	3,148	70	3,031	3/3	Supplemental

Test results and cost information provided by QualityLogic. Tests were performed under laboratory conditions and end-user's results may vary. Test results, ink cartridge pricing and cost per page pricing subject to change without notice by QualityLogic. All test results and cost information are provided "as-is," "as available," and all warranties, expressed or implied are hereby disclaimed. Users of the information contained herein assume full responsibility and risk of loss resulting from usage thereof.

<b>Printer Identifier</b>	<b>HP Photosmart C6380</b>
Printer Manufacturer	Hewlett-Packard
Cartridge Identifier	HP564 - CB316WN, CB317WN, CB318WN, CB319WN, CB320WN
Cartridge Type	Separate ink supply and print head
Date Tested	September 23, 2008 to September 26, 2008
EOL Criteria	This printer has Ink Out which stops printing. Whichever came first, either Ink Out or Fade, was used as the EOL criteria.
Print mode used	Continuous
Paper Size	4" x 6" borderless photo on 8 ½" x 11" photo
Media used	HP Premium Plus Photo Paper, High Gloss (Q1785A)
Driver version	Driver Version = 61.81.2311.0 The following driver settings were changed from default: Paper type = Changed to HP Premium Plus Photo papers from Automatic Print quality = Changed to Best from Automatic

## Declaration of Yield

### Inkjet Cartridge Yield when tested in HP Photosmart C6380 All-in One:

Using the QualityLogic Color Photo test suite provides the following results:

- Average Cyan Cartridge Yield – Up to 94 standard pages
- Average Magenta Cartridge Yield – Up to 130 standard pages
- Average Yellow Cartridge Yield – Up to 98 standard pages
- Average K (Photo Black) Cartridge Yield – Up to 85 standard pages
- Estimated supplemental K (Black) Cartridge Yield – Up to 723 standard pages

Values obtained by continuous printing. Declared yield values in accordance with QualityLogic Color Photo Yield Test Methodology

Cartridge Identifier	Color	Average (pages)	Standard Deviation (pages)	90% Lower Confidence (pages)	Number used in calculations/test	Primary/ Supplemental
HP 564 (CB318WN)	Cyan	96	4	94	12/15	Primary
HP 564 (CB319WN)	Magenta	134	7	130	9/9	Primary
HP 564 (CB320WN)	Yellow	99	2	98	12/15	Primary
HP 564 (CB317WN)	K (Photo Black)	89	8	85	12/15	Primary
HP 564 (CB316WN)	K (Black)	784	36	723	3/3	Supplemental

<b>Printer Identifier</b>	<b>HP Photosmart C7280</b>
Printer Manufacturer	Hewlett-Packard
Cartridge Identifier	HP02 - C8721WN, C8771WN, C8772WN, C8773WN, C8774WN, C8775WN
Cartridge Type	Separate ink supply and print head
Date Tested	October 3, 2007 to November 1, 2007
EOL Criteria	This printer has Ink Out which stops printing. Whichever came first, either Ink Out or Fade, was used as the EOL criteria.
Print mode used	Continuous
Paper Size	Letter
Media used	Xerox Business 4200, 92 Brightness 20lb. weight
Driver version	DriverVer=03/23/2007, 61.071.244.00 The following driver settings were changed from default: Paper Type = Changed to Plain paper from Automatic

### Declaration of Yield

#### Inkjet Cartridge Yield when tested in HP Photosmart C7280:

Using the test suite defined in ISO/IEC 24712 provides the following results:

- Average K (Black) Cartridge Yield – Up to 713 standard pages
- Average Cyan Cartridge Yield – Up to 411 standard pages
- Average Magenta Cartridge Yield – Up to 383 standard pages
- Average Yellow Cartridge Yield – Up to 483 standard pages
- Estimated supplemental Light Cyan Cartridge Yield – Up to 12,126 standard pages
- Estimated supplemental Light Magenta Cartridge Yield – Up to 11,632 standard pages

Using the test page defined in ISO/IEC 19752 provides the following results:

- Average K (Black) Cartridge Yield – Up to 1,389 standard pages
- Average supplemental Cyan Cartridge Yield – Up to 1,421 standard pages
- Average supplemental Magenta Cartridge Yield – Up to 804 standard pages
- Average supplemental Yellow Cartridge Yield – Up to 1,306 standard pages
- Estimated supplemental Light Cyan Cartridge Yield – Up to 14,765 standard pages
- Estimated supplemental Light Magenta Cartridge Yield – Up to 14,293 standard pages

Values obtained by continuous printing. Declared yield value in accordance with ISO/IEC 24711.

#### Using 24712 Test Suite

Cartridge Identifier	Color	Average (pages)	Standard Deviation (pages)	90% Lower Confidence (pages)	Number used in calculations/test	Primary/ Supplemental
HP02 C8721WN	K (Black)	723	34	713	30/30	Primary
HP02 C8771WN	Cyan	426	60	411	49/52	Primary
HP02 C8772WN	Magenta	396	58	383	53/56	Primary
HP02 C8773WN	Yellow	502	71	483	42/45	Primary
HP02 C8774WN	Light Cyan	14,069	1,153	12,126	3/3	Supplemental
HP02 C8775WN	Light Magenta	13,642	1,193	11,632	3/3	Supplemental

Test results and cost information provided by QualityLogic. Tests were performed under laboratory conditions and end-user's results may vary. Test results, ink cartridge pricing and cost per page pricing subject to change without notice by QualityLogic. All test results and cost information are provided "as-is," "as available," and all warranties, expressed or implied are hereby disclaimed. Users of the information contained herein assume full responsibility and risk of loss resulting from usage thereof.

Using 19752 Test Page						
Cartridge Identifier	Color	Average (pages)	Standard Deviation (pages)	90% Lower Confidence (pages)	Number used in calculations/test	Primary/ Supplemental
HP02 C8721WN	K (Black)	1,441	151	1,389	24/27	Primary
HP02 C8771WN	Cyan	1,499	208	1,421	21/27	Supplemental
HP02 C8772WN	Magenta	853	183	804	39/45	Supplemental
HP02 C8773WN	Yellow	1,365	169	1,306	24/30	Supplemental
HP02 C8774WN	Light Cyan	15,669	536	14,765	3/6	Supplemental
HP02 C8775WN	Light Magenta	14,609	187	14,293	3/6	Supplemental

Test results and cost information provided by QualityLogic. Tests were performed under laboratory conditions and end-user's results may vary. Test results, ink cartridge pricing and cost per page pricing subject to change without notice by QualityLogic. All test results and cost information are provided "as-is," "as available," and all warranties, expressed or implied are hereby disclaimed. Users of the information contained herein assume full responsibility and risk of loss resulting from usage thereof.

<b>Printer Identifier</b>	<b>HP Photosmart C7280</b>
Printer Manufacturer	Hewlett-Packard
Cartridge Identifier	HP02 - C8721WN, C8771WN, C8772WN, C8773WN, C8774WN, C8775WN
Cartridge Type	Separate ink supply and print head
Date Tested	November 1, 2007 to November 6, 2007
EOL Criteria	This printer has Ink Out which stops printing. Whichever came first, either Ink Out or Fade, was used as the EOL criteria.
Print mode used	Continuous
Paper Size	4" x 6" borderless photo on 8 ½" x 11" photo
Media used	HP Premium Plus Photo Paper, high gloss (Q1785A)
Driver version	DriverVer=03/23/2007, 61.071.244.00 The following driver settings were changed from default: Paper Type = Changed to HP Premium Plus Photo Papers from Automatic Print Quality = Changed to Best from Automatic

### Declaration of Yield

#### Inkjet Cartridge Yield when tested in HP Photosmart C7280:

Using the QualityLogic Color Photo test suite provides the following results:

- Average Cyan Cartridge Yield – Up to 306 standard pages
- Average Magenta Cartridge Yield – Up to 326 standard pages
- Average Yellow Cartridge Yield – Up to 152 standard pages
- Average Light Cyan Cartridge Yield – Up to 141 standard pages
- Average Light Magenta Cartridge Yield – Up to 134 standard pages
- Estimated supplemental K (Black) Cartridge Yield – Up to 775 standard pages

Values obtained by continuous printing. Declared yield value in accordance with QualityLogic Color Photo Cartridge Yield Test Methodology.

Cartridge Identifier	Color	Average (pages)	Standard Deviation (pages)	90% Lower Confidence (pages)	Number used in calculations/test	Primary/ Supplemental
HP02 C8771WN	Cyan	342	58	306	9/11	Primary
HP02 C8772WN	Magenta	345	30	326	9/10	Primary
HP02 C8773WN	Yellow	163	29	152	18/21	Primary
HP02 C8774WN	Light Cyan	151	25	141	19/22	Primary
HP02 C8775WN	Light Magenta	143	26	134	21/24	Primary
HP02 C8721WN	K (Black)	903	76	775	3/6	Supplemental

Test results and cost information provided by QualityLogic. Tests were performed under laboratory conditions and end-user's results may vary. Test results, ink cartridge pricing and cost per page pricing subject to change without notice by QualityLogic. All test results and cost information are provided "as-is," "as available," and all warranties, expressed or implied are hereby disclaimed. Users of the information contained herein assume full responsibility and risk of loss resulting from usage thereof.

<b>Printer Identifier</b>	<b>HP Officejet J4580</b>
Printer Manufacturer	Hewlett-Packard
Cartridge Identifier	HP 901 (CC653AN), HP 901 (CC656AN)
Cartridge Type	Integral ink supply and print head
Date Tested	June 9, 2008 to June 16, 2008
EOL Criteria	Fade was used as the EOL criteria.
Print mode used	Continuous
Paper Size	Letter
Media used	Xerox Business 4200, 92 Brightness 20lb. weight
Driver version	DriverVer=11/05/2007,61.073.242.00 The drivers default settings were used for testing.

### Inkjet Cartridge Yield when tested in HP Officejet J4580 All-in-One:

Using the test suite defined in ISO/IEC 24712 provides the following results:

Average K (Black) Cartridge Yield – Up to 178 standard pages

Average Tri-color Cartridge Yield – Up to 367 standard pages

Using the test page defined in ISO/IEC 19752 provides the following results:

Average K (Black) Cartridge Yield – Up to 175 standard pages

Estimated supplemental Tri-color Cartridge Yield – Up to 1,313 standard pages

Values obtained by continuous printing. Declared yield values in accordance with ISO/IEC 24711

Using 24712 Test Suite						
Cartridge Identifier	Color	Average (pages)	Standard Deviation (pages)	90% Lower Confidence (pages)	Number used in calculations/test	Primary/ Supplemental
HP 901 (CC653AN)	K (Black)	182	10	178	17/23	Primary
HP 901 (CC656AN)	Tri-color	381	22	367	9/12	Primary

Using 19752 Test Page						
Cartridge Identifier	Color	Average (pages)	Standard Deviation (pages)	90% Lower Confidence (pages)	Number used in calculations/test	Primary/ Supplemental
HP 901 (CC653AN)	K (Black)	181	9	175	9/9	Primary
HP 901 (CC656AN)	Tri-color	1,387	44	1,313	3/3	Supplemental

<b>Printer Identifier</b>	<b>HP Officejet J4580</b>
Printer Manufacturer	Hewlett-Packard
Cartridge Identifier	HP 901 (CC653AN), HP 901 (CC656AN)
Cartridge Type	Integral ink supply and print head
Date Tested	June 16, 2008 to June 19, 2008
EOL Criteria	Fade was used as the EOL criteria.
Print mode used	Continuous
Paper Size	4" x 6" borderless photo on 8 ½" x 11" photo paper
Media used	HP Premium Plus Photo paper, high gloss (Q1785A)
Driver version	DriverVer=11/05/2007,61.073.242.00 The following driver settings were changed from default: Paper type = Changed to HP Premium Plus Photo Papers from Plain The Print quality setting automatically changed to Best from Normal after Paper type was configured for HP Premium Plus Photo papers.

### Inkjet Cartridge Yield when tested in HP Officejet J4580 All-in-One:

Using the QualityLogic Color Photo test suite provides the following results:

Average Tri-color Cartridge Yield – Up to 124 standard pages

Estimated supplemental K (Black) Cartridge Yield – Up to 1,632 standard pages

Values obtained by continuous printing. Declared yield values in accordance with QualityLogic Color Photo Yield Test Methodology

Cartridge Identifier	Color	Average (pages)	Standard Deviation (pages)	90% Lower Confidence (pages)	Number used in calculations/test	Primary/ Supplemental
HP 901 (CC656AN)	Tri-color	127	6	124	9/9	Primary
HP 901 (CC653AN)	K (Black)	1,741	65	1,632	3/3	Supplemental

<b>Printer Identifier</b>	<b>HP Officejet J5780</b>
Printer Manufacturer	Hewlett-Packard
Cartridge Identifier	HP74, HP75
Cartridge Type	Integral ink supply and print head
Date Tested	May 3, 2007 to May 5, 2007
EOL Criteria	Fade was used as the EOL criteria.
Print mode used	Continuous
Paper Size	Letter
Media used	Xerox Business 4200, 92 Brightness 20lb. weight
Driver version	Driver Version = 09/01/2006,60.062.241.00 The driver's default setting was used: Quality = Normal Paper = Plain

### Inkjet Cartridge Yield when tested in Hewlett-Packard Officejet J5780:

Using the test suite defined in ISO/IEC 24712 provides the following results:

Average K (Black) Cartridge Yield – Up to 188 standard pages

Average Tri-color Cartridge Yield – Up to 178 standard pages

Using the test page defined in ISO/IEC 19752 provides the following results:

Average K (Black) Cartridge Yield – Up to 198 standard pages

Estimated supplemental Tri-color Cartridge Yield Up to 1,529 standard pages

Values obtained by continuous printing. Declared yield values in accordance with ISO/IEC 24711

#### Using 24712 Test Suite

Cartridge Identifier	Color	Average (pages)	Standard Deviation (pages)	90% Lower Confidence (pages)	Number used in calculations/test	Primary/ Supplemental
HP 74	K (Black)	195	12	188	9/13	Primary
HP 75	Tri-color	181	5	178	9/14	Primary

#### Using 19752 Test Page

Cartridge Identifier	Color	Average (pages)	Standard Deviation (pages)	90% Lower Confidence (pages)	Number used in calculations/test	Primary/ Supplemental
HP 74	K (Black)	201	4	198	9/9	Primary
HP 75	Tri-color	1,700	101	1,529	3/3	Supplemental

<b>Printer Identifier</b>	<b>HP Officejet J5780</b>
Printer Manufacturer	Hewlett-Packard
Cartridge Identifier	HP74, HP75
Cartridge Type	Integral ink supply and print head
Date Tested	May 7, 2007 to May 8, 2007
EOL Criteria	Fade was used as the EOL criteria.
Print mode used	Continuous
Paper Size	4" x 6" borderless photo on 8 ½" x 11" photo paper
Media used	HP Premium Plus High-gloss Photo Paper (Q1785A)
Driver version	Driver Version = 09/01/2006,60.062.241.00 The following settings were used: Photo printing-with white borders Print Quality = Best Paper Type = HP Premium Plus Photo Paper

### Inkjet Cartridge Yield when tested in Hewlett-Packard Officejet J5780:

Using the QualityLogic Color Photo test suite provides the following results:  
Average Tri-color Cartridge Yield – Up to 49 standard pages  
Estimated supplemental K (Black) Cartridge Yield – Up to 811 standard pages

Values obtained by continuous printing. Declared yield values in accordance with QualityLogic Color Photo Yield Test Methodology

Cartridge Identifier	Color	Average (pages)	Standard Deviation (pages)	90% Lower Confidence (pages)	Number used in calculations/test	Primary/ Supplemental
HP 75	Tri-color	51	3	49	9/10	Primary
HP 74	K (Black)	861	30	811	3/3	Supplemental

<b>Printer Identifier</b>	<b>HP Officejet 6500</b>
Printer Manufacturer	Hewlett-Packard
Cartridge Identifier	HP 920 - CD971AN, CH634AN, CH635AN, CH636AN
Cartridge Type	Separate ink supply and print head
Date Tested	May 1, 2009 to May 6, 2009
EOL Criteria	This printer has Ink Out which stops printing. Whichever came first, either Ink Out or Fade, was used as the EOL criteria.
Print mode used	Continuous
Paper Size	Letter
Media used	Xerox Business 4200, 92 Brightness 20lb. weight
Driver version	Driver version = 70.82.15.0 The following driver settings were changed from default: Color Ink Test: Paper type = Changed to Plain paper from Automatic. Mono Ink Test: Paper type = Changed to Plain paper from Automatic.

## Declaration of Yield

### Inkjet Cartridge Yield when tested in HP Officejet 6500 All-in-One:

Using the test suite defined in ISO/IEC 24712 provides the following results:

- Average K (Black) Cartridge Yield – Up to 387 standard pages
- Average Cyan Cartridge Yield – Up to 238 standard pages
- Average Magenta Cartridge Yield – Up to 253 standard pages
- Average Yellow Cartridge Yield – Up to 266 standard pages

Using the test page defined in ISO/IEC 19752 provides the following results:

- Average K (Black) Cartridge Yield – Up to 405 standard pages
- Estimated supplemental Cyan Cartridge Yield – Up to 2,449 standard pages
- Estimated supplemental Magenta Cartridge Yield – Up to 2,946 standard pages
- Estimated supplemental Yellow Cartridge Yield – Up to 3,572 standard pages

Values obtained by continuous printing. Declared yield values in accordance with ISO/IEC 24711

Using 24712 Test Suite						
Cartridge Identifier	Color	Average (pages)	Standard Deviation (pages)	90% Lower Confidence (pages)	Number used in calculations/test	Primary/ Supplemental
HP 920 (CD971AN)	K (Black)	389	3	387	9/9	Primary
HP 920 (CH634AN)	Cyan	244	11	238	12/15	Primary
HP 920 (CH635AN)	Magenta	259	11	253	12/15	Primary
HP 920 (CH636AN)	Yellow	270	8	266	12/15	Primary

Using 19752 Test Page						
Cartridge Identifier	Color	Average (pages)	Standard Deviation (pages)	90% Lower Confidence (pages)	Number used in calculations/test	Primary/ Supplemental
HP 920 (CD971AN)	K (Black)	406	1	405	9/9	Primary
HP 920 (CH634AN)	Cyan	2,554	63	2,449	3/3	Supplemental
HP 920 (CH635AN)	Magenta	3,062	69	2,946	3/3	Supplemental
HP 920 (CH636AN)	Yellow	3,751	106	3,572	3/3	Supplemental

<b>Printer Identifier</b>	<b>HP Officejet 6500</b>
Printer Manufacturer	Hewlett-Packard
Cartridge Identifier	HP 920 - CD971AN, CH634AN, CH635AN, CH636AN
Cartridge Type	Separate ink supply and print head
Date Tested	May 6, 2009 to May 7, 2009
EOL Criteria	This printer has Ink Out which stops printing. Whichever came first, either Ink Out or Fade, was used as the EOL criteria.
Print mode used	Continuous
Paper Size	4" x 6" borderless photo on 8 ½" x 11" photo
Media used	HP Premium Plus Photo Paper (Q1785A)
Driver version	Driver version = 70.82.15.0 The following driver settings were changed from default: Paper type = Changed to HP Premium Plus Photo Papers from Automatic. Print quality = Changed to Best from Automatic.

## Declaration of Yield

### Inkjet Cartridge Yield when tested in HP Officejet 6500:

Using the QualityLogic Color Photo test suite provides the following results:

Average Cyan Cartridge Yield – Up to 69 standard pages

Average Magenta Cartridge Yield – Up to 97 standard pages

Average Yellow Cartridge Yield – Up to 86 standard pages

Estimated supplemental K (Black) Cartridge Yield – Up to 1,811 standard pages

Values obtained by continuous printing. Declared yield values in accordance with QualityLogic Color Photo Yield Test Methodology

Cartridge Identifier	Color	Average (pages)	Standard Deviation (pages)	90% Lower Confidence (pages)	Number used in calculations/test	Primary/ Supplemental
HP 920 (CH634AN)	Cyan	71	3	69	12/15	Primary
HP 920 (CH635AN)	Magenta	100	5	97	9/9	Primary
HP 920 (CH636AN)	Yellow	86	1	86	9/12	Primary
HP 920 (CD971AN)	K (Black)	1,970	95	1,811	3/3	Supplemental

<b>Printer Identifier</b>	<b>HP Officejet Pro 8500</b>
Printer Manufacturer	Hewlett-Packard
Cartridge Identifier	HP 940 - C4902AN, C4903AN, C4904AN, C4905AN
Cartridge Type	Separate ink supply and print head
Date Tested	May 14, 2009 to May 20, 2009
EOL Criteria	This printer has Ink Out which stops printing. Whichever came first, either Ink Out or Fade, was used as the EOL criteria.
Print mode used	Continuous
Paper Size	Letter
Media used	Xerox Business 4200, 92 Brightness 20lb. weight
Driver version	Driver version = 70.82.15.0

## Declaration of Yield

### Inkjet Cartridge Yield when tested in HP Officejet Pro 8500 All-in-One:

Using the test suite defined in ISO/IEC 24712 provides the following results:

- Average K (Black) Cartridge Yield – Up to 984 standard pages
- Average Cyan Cartridge Yield – Up to 955 standard pages
- Average Magenta Cartridge Yield – Up to 956 standard pages
- Average Yellow Cartridge Yield – Up to 920 standard pages

Using the test page defined in ISO/IEC 19752 provides the following results:

- Average K (Black) Cartridge Yield – Up to 1,011 standard pages
- Estimated supplemental Cyan Cartridge Yield – Up to 16,325 standard pages
- Estimated supplemental Magenta Cartridge Yield – Up to 16,909 standard pages
- Estimated supplemental Yellow Cartridge Yield – Up to 14,209 standard pages

Values obtained by continuous printing. Declared yield values in accordance with ISO/IEC 24711

Using 24712 Test Suite						
Cartridge Identifier	Color	Average (pages)	Standard Deviation (pages)	90% Lower Confidence (pages)	Number used in calculations/test	Primary/ Supplemental
HP 940 (C4902AN )	K (Black)	991	10	984	9/12	Primary
HP 940 (C4903AN )	Cyan	963	13	955	9/15	Primary
HP 940 (C4904AN )	Magenta	963	11	956	9/15	Primary
HP 940 (C4905AN )	Yellow	929	15	920	9/15	Primary

Using 19752 Test Page						
Cartridge Identifier	Color	Average (pages)	Standard Deviation (pages)	90% Lower Confidence (pages)	Number used in calculations/test	Primary/ Supplemental
HP 940 (C4902AN )	K (Black)	1,023	19	1,011	9/9	Primary
HP 940 (C4903AN )	Cyan	18,709	1,414	16,325	3/3	Supplemental
HP 940 (C4904AN )	Magenta	19,498	1,536	16,909	3/3	Supplemental
HP 940 (C4905AN )	Yellow	15,966	1,042	14,209	3/3	Supplemental

<b>Printer Identifier</b>	<b>HP Officejet Pro 8500</b>
Printer Manufacturer	Hewlett-Packard
Cartridge Identifier	HP 940 - C4902AN, C4903AN, C4904AN, C4905AN
Cartridge Type	Separate ink supply and print head
Date Tested	May 20, 2009 to May 26, 2009
EOL Criteria	This printer has Ink Out which stops printing. Whichever came first, either Ink Out or Fade, was used as the EOL criteria.
Print mode used	Continuous
Paper Size	4" x 6" borderless photo on 8 ½" x 11" photo
Media used	HP Premium Plus Photo Paper (Q1785A)
Driver version	Driver version = 70.82.15.0 The following driver settings were changed from default: Paper Type = Changed to HP Advanced Photo Papers from Plain Paper

## Declaration of Yield

### Inkjet Cartridge Yield when tested in HP Officejet Pro 8500 All-in-One:

Using the QualityLogic Color Photo test suite provides the following results:

- Average Cyan Cartridge Yield – Up to 240 standard pages
- Average Magenta Cartridge Yield – Up to 256 standard pages
- Average Yellow Cartridge Yield – Up to 274 standard pages
- Estimated supplemental K (Black) Cartridge Yield – Up to 7,012 standard pages

Values obtained by continuous printing. Declared yield values in accordance with QualityLogic Color Photo Yield Test Methodology

Cartridge Identifier	Color	Average (pages)	Standard Deviation (pages)	90% Lower Confidence (pages)	Number used in calculations/test	Primary/ Supplemental
HP 940 (C4903AN )	Cyan	243	4	240	9/12	Primary
HP 940 (C4904AN )	Magenta	259	5	256	9/12	Primary
HP 940 (C4905AN )	Yellow	277	5	274	9/9	Primary
HP 940 (C4902AN )	K (Black)	7,960	563	7,012	3/3	Supplemental

<b>Printer Identifier</b>	<b>Lexmark X6650 Wireless 4-in-1</b>
Printer Manufacturer	Lexmark
Cartridge Identifier	36A, 37A
Cartridge Type	Integral ink supply and print head
Date Tested	September 23, 2008 to September 29, 2008
EOL Criteria	Fade was used as the EOL criteria.
Print mode used	Continuous
Paper Size	Letter
Media used	Xerox Business 4200, 92 Brightness 20lb. weight
Driver version	DriverVer=05/23/2008,1.2.6.2 The following driver settings were changed from default: Color Ink Test: Media Type = Changed to Plain Paper from Automatic Mono Ink Test: Media Type = Changed to Plain Paper from Automatic "Print in Black and White" was enabled on the Print Setup tab.

## Declaration of Yield

### Inkjet Cartridge Yield when tested in Lexmark X6650 Wireless 4-in-1:

Using the test suite defined in ISO/IEC 24712 provides the following results:

- Average K (Black) Cartridge Yield – Up to 195 standard pages
- Average Tri-Color Cartridge Yield – Up to 188 standard pages

Using the test page defined in ISO/IEC 19752 provides the following results:

- Average K (Black) Cartridge Yield – Up to 198 standard pages
- Estimated supplemental Tri-Color Cartridge Yield – Up to 13,196 standard pages

Values obtained by continuous printing. Declared yield values in accordance with ISO/IEC 24711

Using 24712 Test Suite						
Cartridge Identifier	Color	Average (pages)	Standard Deviation (pages)	90% Lower Confidence (pages)	Number used in calculations/test	Primary/ Supplemental
36A	K (Black)	203	12	195	9/12	Primary
37A	Tri-color	194	9	188	9/15	Primary

Using 19752 Test Page						
Cartridge Identifier	Color	Average (pages)	Standard Deviation (pages)	90% Lower Confidence (pages)	Number used in calculations/test	Primary/ Supplemental
36A	K (Black)	207	15	198	9/9	Primary
37A	Tri-color	16,500	1,960	13,196	3/3	Supplemental

<b>Printer Identifier</b>	<b>Lexmark X6650 Wireless 4-in-1</b>
Printer Manufacturer	Lexmark
Cartridge Identifier	36A, 37A
Cartridge Type	Integral ink supply and print head
Date Tested	September 30, 2008 to October 1, 2008
EOL Criteria	Fade was used as the EOL criteria.
Print mode used	Continuous
Paper Size	4" x 6" borderless photo on 8 ½" x 11" photo paper
Media used	Lexmark Premium Photo Paper (21G1740)
Driver version	DriverVer=05/23/2008,1.2.6.2 The following driver settings were changed from default: Media Type = Changed to Lexmark Premium Photo Paper from Automatic Print Setup = Changed to Best from Automatic

### Declaration of Yield

#### Inkjet Cartridge Yield when tested in Lexmark X6650 Wireless 4-in-1:

Using the QualityLogic Color Photo test suite provides the following results:

Average Tri-Color Cartridge Yield – Up to 38 standard pages

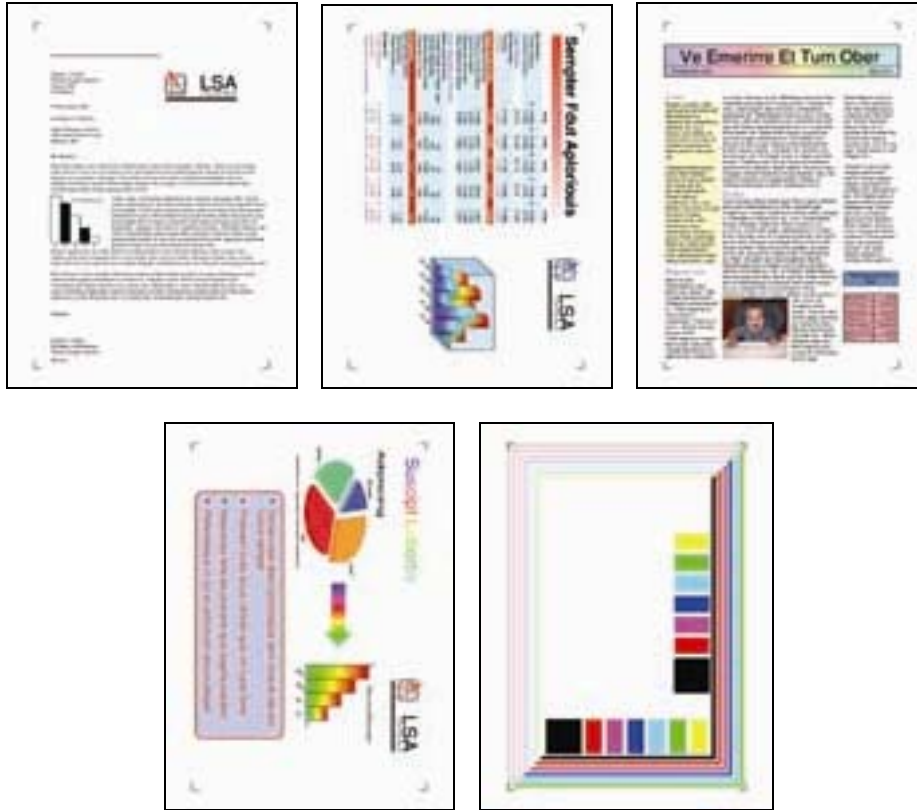
Estimated supplemental K (Black) Cartridge Yield – Up to 2,111 standard pages

Values obtained by continuous printing. Declared yield values in accordance with QualityLogic Color Photo Yield Test Methodology

Cartridge Identifier	Color	Average (pages)	Standard Deviation (pages)	90% Lower Confidence (pages)	Number used in calculations/test	Primary/ Supplemental
37A	Tri-color	40	4	38	9/9	Primary
36A	K (Black)	2,236	74	2,111	3/3	Supplemental

## Sub-Appendix A1 – Test Pages

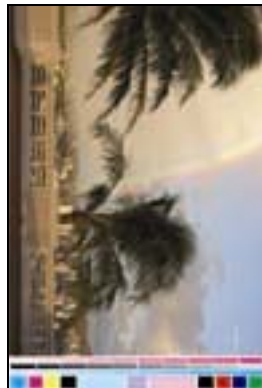
### ISO/ ISO/IEC 24712 Test Suite



### ISO/IEC 19752 Test Page



## QualityLogic Photo Test Suite



Test results and cost information provided by QualityLogic. Tests were performed under laboratory conditions and end-user's results may vary. Test results, ink cartridge pricing and cost per page pricing subject to change without notice by QualityLogic. All test results and cost information are provided "as-is," "as available," and all warranties, expressed or implied are hereby disclaimed. Users of the information contained herein assume full responsibility and risk of loss resulting from usage thereof.