



## **Cost of Ink Per Page Analysis**

**Australia**

**August 2010**

Includes ink cartridge pricing provided by



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## Summary and Scope of Analysis

For more than 24 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 12 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 Intelligence provided the manufacturer's suggested retail price (MSRP) for each of the cartridges in the test based on information collected in Q2 2010. If the cartridge price wasn't available on the manufacturer's website, Gap Intelligence provided an average of three reseller street prices. Pricing includes Australian GST.

For this report, complete sets of standard as-shipped-in-box cartridges or the standard-yield ink cartridges were evaluated for the purpose of making like-basis comparisons between all printers. For printers where a complete set of standard cartridges was not available, a complete set of high-yield cartridges was evaluated. Ink cost comparisons are made using single quantity cartridge pricing (i.e., no multi-packs, combo packs, value packs or special promotions.)

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 Intelligence 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 (Q2 2010).

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 6150 ESP 7250	Black Ink Cartridge 10, Color Ink Cartridge 10 Black Ink Cartridge 10, Color Ink Cartridge 10
Brother	MFC-5490cn	LC61BK, LC61C, LC61M, LC61Y <sup>1</sup>
Canon	PIXMA MX330 PIXMA MX860	PG-210, CL-211 <sup>2</sup> PGI-220BK, CLI-221C, CLI-221M, CLI-221Y, CLI-221BK <sup>2</sup>
Epson	CX8300	73N Black, Cyan, Magenta, Yellow <sup>3</sup>
Hewlett-Packard	Photosmart C4480 Photosmart C6380  Photosmart Premium  OfficeJet J4580 OfficeJet 6500	HP74, HP75 HP 564 - CB316WN, CB318WN, CB319WN, CB320WN, CB317WN HP 564- CB316WN, CB318WN, CB319WN, CB320WN, CB317WN <sup>4</sup> HP 901 - CC653AN, CC656AN HP 920XL - CD975AE, CD972AE, CD973AE, CD974AE <sup>5</sup>
Lexmark	Intuition S505 Prevail Pro705 X4850	100 Black, Cyan, Magenta, Yellow 100 Black, Cyan, Magenta, Yellow 42A, 41A <sup>6</sup>

<sup>1</sup> The Brother MFC-5490cn was a North American unit tested with the LC61 series cartridges. In this report, pricing for this printer model's cartridges is based on equivalent Australian cartridges and associated pricing for the same model in Australia.

<sup>2</sup> The Canon MX330 and MX860 were both US models using US cartridges. The cartridges that were priced began with a 2 rather than a 5 and are considered the same (for example: PG-210 versus PG-510). All pricing is in Australian dollars for the cartridges that have a 5 as the leading digit.)

<sup>3</sup> The Epson CX8300 was a Latin American unit tested with the 73N series cartridges. In this report, pricing for this printer model's cartridges is based on equivalent Australian cartridges and associated pricing for the same model in Australia.

<sup>4</sup> The HP Photosmart Premium was tested with US cartridges with the designation ending in WN, while pricing in this report is for the cartridges ending in WA.

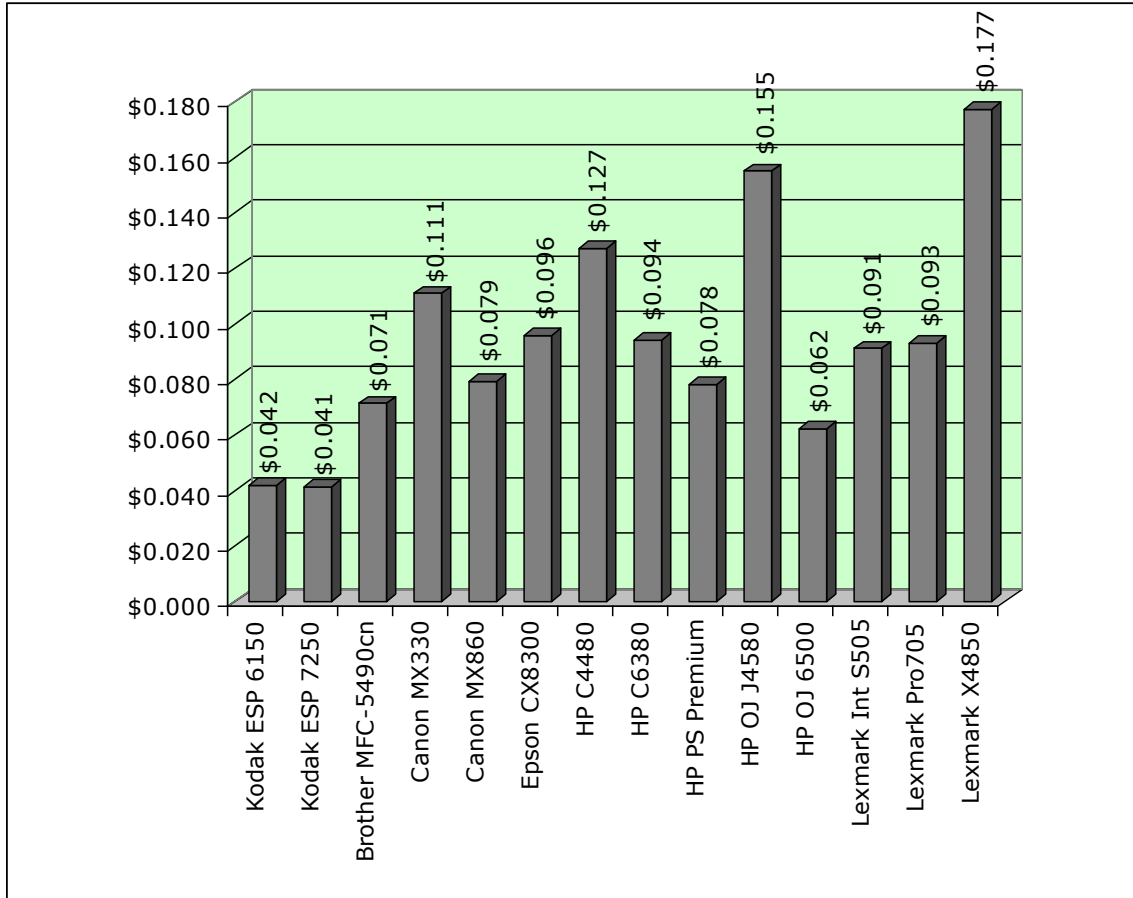
<sup>5</sup> The HP OJ 6500 was tested with High Yield cartridges from Europe with the designation ending in AE, while pricing in this report is for the cartridges ending in AN.

<sup>6</sup> The Lexmark X4850 was tested with 41A and 42A cartridges, but pricing was only available for the 41 and 42 cartridges. The two versions have the same stated yield but the 41 and 42 cartridges are lower cost returnable cartridges.

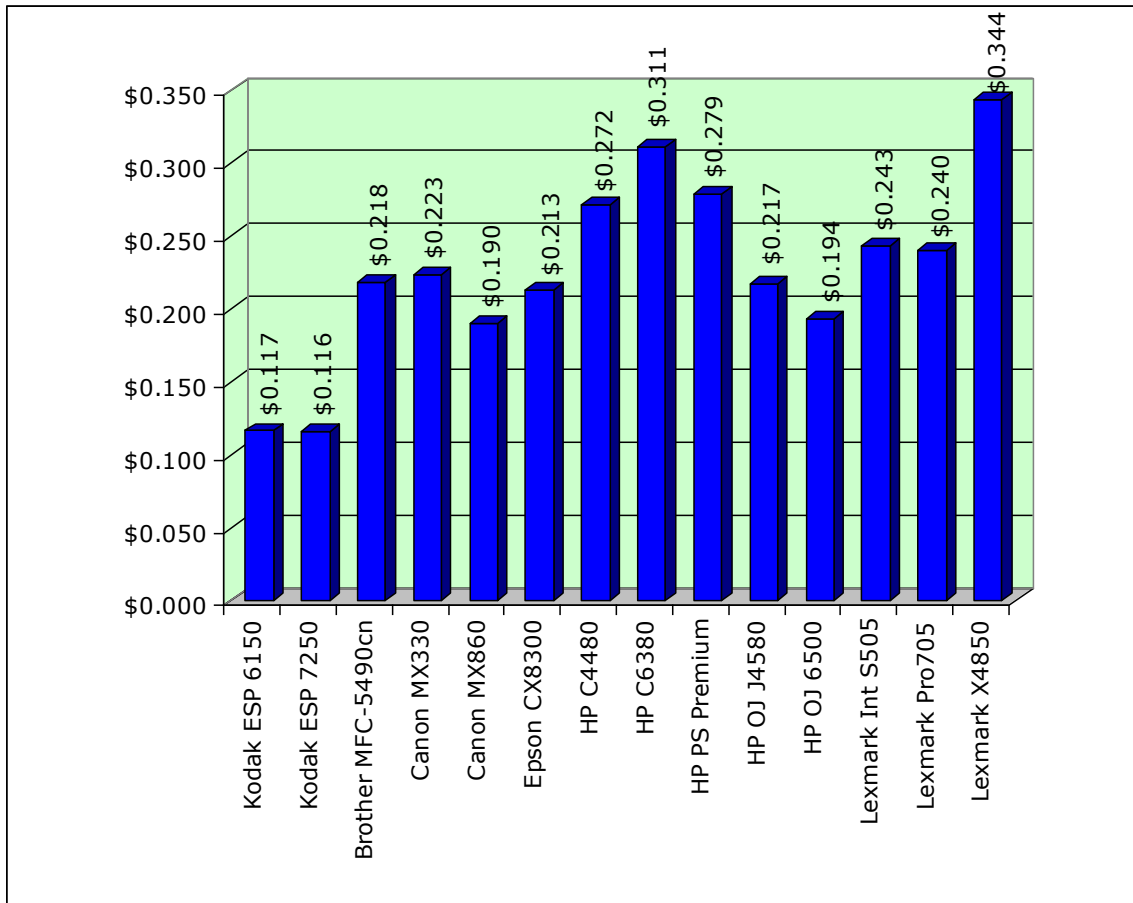
## Cost of Ink Per Page

The following charts summarize the Cost of Ink Per Page for the printers tested using cartridge prices from Australia. 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.

### Australia: Mono - Cost of Ink Per Page (AUSTRALIAN Dollars)

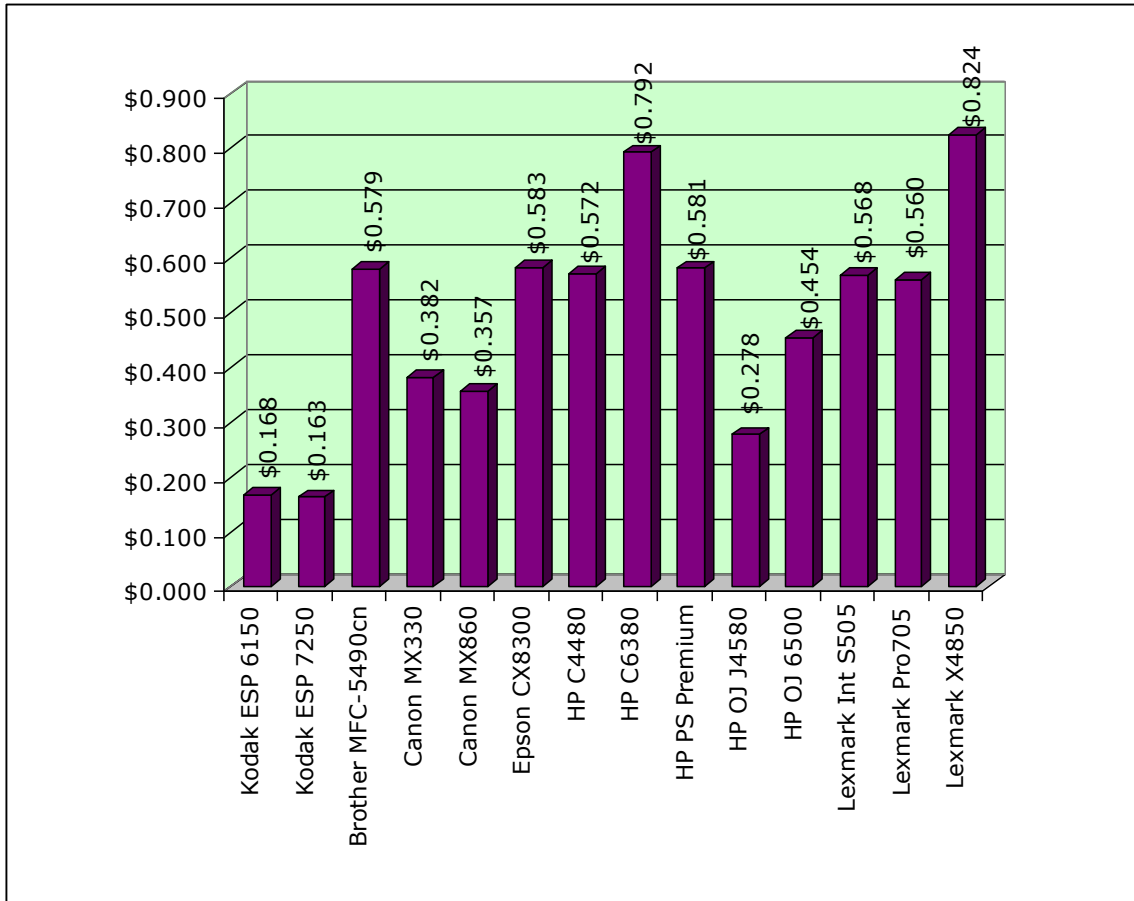


## Australia: Color - Cost of Ink Per Page (AUSTRALIAN Dollars)



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.

## Australia: Photo - Cost of Ink Per Page (AUSTRALIAN Dollars)



## **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 Intelligence, 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 cartridges to exhaust the amount of ink, and the 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, 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 B.

	Mono Ink yield							
	CMY	C	M	Y	K1	K2	LC	LM
Kodak ESP 6150	3511				440			
Kodak ESP 7250	3546				444			
Brother MFC-5490cn		7056	8572	7709	568			
Canon MX330	2738				286			
Canon MX860		3421	3703	4984	360	7966		
Epson CX8300		1465	2114	2312	247			
HP C4480	1575				211			
HP C6380		2411	2445	2520	294	3031		
HP PS Premium		2513	2924	3239	344	6593		
HP OJ J4580	1313				175			
HP OJ 6500		5264	5992	6726	1126			
Lexmark Intuition S505		4018	4015	4515	252			
Lexmark Pro705		2826	2903	2906	260			
Lexmark X4850	2759				223			

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

Color Ink yield								
	CMY	C	M	Y	K1	K2	LC	LM
Kodak ESP 6150	424				283			
Kodak ESP 7250	426				284			
Brother MFC-5490cn		448	360	326	521			
Canon MX330	265				288			
Canon MX860		564	522	553	329	5054		
Epson CX8300		390	289	411	245			
HP C4480	180				205			
HP C6380		291	268	231	268	867		
HP PS Premium		278	278	278	298	1894		
HP OJ J4580	367				178			
HP OJ 6500		528	532	506	1089			
Lexmark Intuition S505		290	236	272	228			
Lexmark Pro705		286	237	269	239			
Lexmark X4850	258				214			

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

Photo Ink yield								
	CMY	C	M	Y	K1	K2	LC	LM
Kodak ESP 6150	173				1275			
Kodak ESP 7250	179				1205			
Brother MFC-5490cn		88	110	91	24117			
Canon MX330	92				1336			
Canon MX860		198	217	220	1796	600		
Epson CX8300		85	86	114	468			
HP C4480	52				1249			
HP C6380		94	130	98	723	85		
HP PS Premium		97	185	132	1999	147		
HP OJ J4580	124				1632			
HP OJ 6500		148	206	159	7487			
Lexmark Intuition S505		64	77	91	603			
Lexmark Pro705		67	80	87	584			
Lexmark X4850	56				3262			

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

## B. Ink Cartridge Pricing

Cartridge prices used in this Cost of Ink Per Page analysis were researched and provided to QualityLogic by Gap Intelligence as of Q2 2010. Gap Intelligence's methodology for data collection used the manufacturer's website for Australia. For this report, complete sets of standard as-shipped-in-box cartridges or the standard-yield ink cartridges were evaluated for the purpose of making like-basis comparisons between all printers. For printers where a complete set of standard cartridges was not available, a complete set of high-yield cartridges was evaluated. Ink cost comparisons are made using single quantity cartridge pricing (i.e., no multi-packs, combo packs, value packs or special promotions.) 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 6150	\$26.99				\$14.99			
Kodak ESP 7250	\$26.99				\$14.99			
Brother MFC-5490cn		\$18.36	\$18.36	\$18.36	\$36.47			
Canon MX330	\$33.21				\$28.24			
Canon MX860		\$21.96	\$21.96	\$21.96	\$21.56	\$20.13		
Epson CX8300		\$16.99	\$16.99	\$16.99	\$16.99			
HP C4480	\$28.77				\$22.96			
HP C6380		\$19.00	\$19.00	\$19.00	\$19.00	\$19.00		
HP PS Premium		\$19.00	\$19.00	\$19.00	\$19.00	\$19.00		
HP OJ J4580	\$32.74				\$22.74			
HP OJ 6500		\$28.00	\$23.12	\$23.12	\$56.00			
Lexmark Intuition S505		\$13.49	\$13.49	\$13.49	\$20.49			
Lexmark Pro705		\$13.49	\$13.49	\$13.49	\$20.49			
Lexmark X4850	\$45.53				\$35.79			

AUSTRALIAN Dollars Source: Gap Intelligence

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

QualityLogic calculated the Cost of Ink Per Page per cartridge by dividing the price of each cartridge (as defined by the Gap Intelligence 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 (AUSTRALIAN Dollars)

	Mono Ink Cost							
	CMY	C	M	Y	K1	K2	LC	LM
Kodak ESP 6150	\$0.008				\$0.034			
Kodak ESP 7250	\$0.008				\$0.034			
Brother MFC-5490cn		\$0.003	\$0.002	\$0.002	\$0.064			
Canon MX330	\$0.012				\$0.099			
Canon MX860		\$0.006	\$0.006	\$0.004	\$0.060	\$0.003		
Epson CX8300		\$0.012	\$0.008	\$0.007	\$0.069			
HP C4480	\$0.018				\$0.109			
HP C6380		\$0.008	\$0.008	\$0.008	\$0.065	\$0.006		
HP PS Premium		\$0.008	\$0.006	\$0.006	\$0.055	\$0.003		
HP OJ J4580	\$0.025				\$0.130			
HP OJ 6500		\$0.005	\$0.004	\$0.003	\$0.050			
Lexmark Int S505		\$0.003	\$0.003	\$0.003	\$0.081			
Lexmark Pro705		\$0.005	\$0.005	\$0.005	\$0.079			
Lexmark X4850	\$0.017				\$0.160			

**Color Cost of Ink Per Individual Cartridge per Page**  
(AUSTRALIAN Dollars)

	Color Ink cost							
	CMY	C	M	Y	K1	K2	LC	LM
Kodak ESP 6150	\$0.064				\$0.053			
Kodak ESP 7250	\$0.063				\$0.053			
Brother MFC-5490cn		\$0.041	\$0.051	\$0.056	\$0.070			
Canon MX330	\$0.125				\$0.098			
Canon MX860		\$0.039	\$0.042	\$0.040	\$0.066	\$0.004		
Epson CX8300		\$0.044	\$0.059	\$0.041	\$0.069			
HP C4480	\$0.160				\$0.112			
HP C6380		\$0.065	\$0.071	\$0.082	\$0.071	\$0.022		
HP PS Premium		\$0.068	\$0.068	\$0.068	\$0.064	\$0.010		
HP OJ J4580	\$0.089				\$0.128			
HP OJ 6500		\$0.053	\$0.043	\$0.046	\$0.051			
Lexmark Int S505		\$0.047	\$0.057	\$0.050	\$0.090			
Lexmark Pro705		\$0.047	\$0.057	\$0.050	\$0.086			
Lexmark X4850	\$0.176				\$0.167			

**Photo Cost of Ink Per Individual Cartridge per Page**  
(AUSTRALIAN Dollars)

	Photo Ink Cost							
	CMY	C	M	Y	K1	K2	LC	LM
Kodak ESP 6150	\$0.156				\$0.012			
Kodak ESP 7250	\$0.151				\$0.012			
Brother MFC-5490cn		\$0.209	\$0.167	\$0.202	\$0.002			
Canon MX330	\$0.361				\$0.021			
Canon MX860		\$0.111	\$0.101	\$0.100	\$0.012	\$0.034		
Epson CX8300		\$0.200	\$0.198	\$0.149	\$0.036			
HP C4480	\$0.553				\$0.018			
HP C6380		\$0.202	\$0.146	\$0.194	\$0.026	\$0.224		
HP PS Premium		\$0.196	\$0.103	\$0.144	\$0.010	\$0.129		
HP OJ J4580	\$0.264				\$0.014			
HP OJ 6500		\$0.189	\$0.112	\$0.145	\$0.007			
Lexmark Int S505		\$0.211	\$0.175	\$0.148	\$0.034			
Lexmark Pro705		\$0.201	\$0.169	\$0.155	\$0.035			
Lexmark X4850	\$0.813				\$0.011			

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.

## 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.

### Mono Cost of Ink Per Individual Cartridge and Total Cost of Ink Per Page (AUSTRALIAN Dollars)

	Mono Ink Cost							Mono CoIPP	
	CMY	C	M	Y	K1	K2	LC		LM
Kodak ESP 6150	\$0.008				\$0.034				\$0.042
Kodak ESP 7250	\$0.008				\$0.034				\$0.041
Brother MFC-5490cn		\$0.003	\$0.002	\$0.002	\$0.064				\$0.071
Canon MX330	\$0.012				\$0.099				\$0.111
Canon MX860		\$0.006	\$0.006	\$0.004	\$0.060	\$0.003			\$0.079
Epson CX8300		\$0.012	\$0.008	\$0.007	\$0.069				\$0.096
HP C4480	\$0.018				\$0.109				\$0.127
HP C6380		\$0.008	\$0.008	\$0.008	\$0.065	\$0.006			\$0.094
HP PS Premium		\$0.008	\$0.006	\$0.006	\$0.055	\$0.003			\$0.078
HP OJ J4580	\$0.025				\$0.130				\$0.155
HP OJ 6500		\$0.005	\$0.004	\$0.003	\$0.050				\$0.062
Lexmark Int S505		\$0.003	\$0.003	\$0.003	\$0.081				\$0.091
Lexmark Pro705		\$0.005	\$0.005	\$0.005	\$0.079				\$0.093
Lexmark X4850	\$0.017				\$0.160				\$0.177

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

	Color Ink cost								Color CoIPP
	CMY	C	M	Y	K1	K2	LC	LM	
Kodak ESP 6150	\$0.064				\$0.053				\$0.117
Kodak ESP 7250	\$0.063				\$0.053				\$0.116
Brother MFC-5490cn		\$0.041	\$0.051	\$0.056	\$0.070				\$0.218
Canon MX330	\$0.125				\$0.098				\$0.223
Canon MX860		\$0.039	\$0.042	\$0.040	\$0.066	\$0.004			\$0.190
Epson CX8300		\$0.044	\$0.059	\$0.041	\$0.069				\$0.213
HP C4480	\$0.160				\$0.112				\$0.272
HP C6380		\$0.065	\$0.071	\$0.082	\$0.071	\$0.022			\$0.311
HP PS Premium		\$0.068	\$0.068	\$0.068	\$0.064	\$0.010			\$0.279
HP OJ J4580	\$0.089				\$0.128				\$0.217
HP OJ 6500		\$0.053	\$0.043	\$0.046	\$0.051				\$0.194
Lexmark Int S505		\$0.047	\$0.057	\$0.050	\$0.090				\$0.243
Lexmark Pro705		\$0.047	\$0.057	\$0.050	\$0.086				\$0.240
Lexmark X4850	\$0.176				\$0.167				\$0.344

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

	Photo Ink Cost								Photo CoIPP
	CMY	C	M	Y	K1	K2	LC	LM	
Kodak ESP 6150	\$0.156				\$0.012				\$0.168
Kodak ESP 7250	\$0.151				\$0.012				\$0.163
Brother MFC-5490cn		\$0.209	\$0.167	\$0.202	\$0.002				\$0.579
Canon MX330	\$0.361				\$0.021				\$0.382
Canon MX860		\$0.111	\$0.101	\$0.100	\$0.012	\$0.034			\$0.357
Epson CX8300		\$0.200	\$0.198	\$0.149	\$0.036				\$0.583
HP C4480	\$0.553				\$0.018				\$0.572
HP C6380		\$0.202	\$0.146	\$0.194	\$0.026	\$0.224			\$0.792
HP PS Premium		\$0.196	\$0.103	\$0.144	\$0.010	\$0.129			\$0.581
HP OJ J4580	\$0.264				\$0.014				\$0.278
HP OJ 6500		\$0.189	\$0.112	\$0.145	\$0.007				\$0.454
Lexmark Int S505		\$0.211	\$0.175	\$0.148	\$0.034				\$0.568
Lexmark Pro705		\$0.201	\$0.169	\$0.155	\$0.035				\$0.560
Lexmark X4850	\$0.813				\$0.011				\$0.824

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.

## Contact Information

For information regarding this Cost of Ink Per Page Analysis, please contact the following person/s:

### QualityLogic:



**QualityLogic**

Dave Jollota  
President & CEO  
Phone: +1-805-531-9030 x122  
[djollota@qualitylogic.com](mailto:djollota@qualitylogic.com)

Gary James  
General Manager, Testing Services Group  
Phone: +1-805-531-9030 x151  
[gjames@qualitylogic.com](mailto:gjames@qualitylogic.com)

### Gap Intelligence:



**gap intelligence**

Tom Foster  
Director Sales and Marketing  
Phone: +1-760-434-7222  
Fax: +1-619-574-6600  
[tfoster@gapintelligence.com](mailto:tfoster@gapintelligence.com)  
Address: 701 C Street, San Diego, CA 92101

### 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. The Gap Intelligence 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 clients make smarter decisions and respond to market changes faster.

## Appendix A: Test Methodology Summary

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

## Appendix B: QualityLogic Declared Yield Test Results

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

<b>Printer Identifier</b>	<b>Kodak ESP 6150</b>
Printer Manufacturer	Kodak
Cartridge Identifier	Black Ink Cartridge 10B & Color Ink Cartridge 10C
Cartridge Type	Separate ink supply and print head
Date Tested	5/4/2010 – 5/19/2010
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	The latest driver available was downloaded from Kodak’s United States website. Driver Version = 5.1.6.0 The following driver settings were changed from default: Color Ink Test: Paper type = Changed to Plain Paper from Auto Select Mono Ink Test: Paper type = Changed to Plain Paper from Auto Select Color printing = Changed to Black and White from Color

### Declaration of Yield

#### Inkjet Cartridge Yield when tested in Kodak ESP Office 6150:

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

Average K (Black) Cartridge Yield – Up to 283 standard pages

Average Color Cartridge Yield – Up to 424 standard pages

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

Average K (Black) Cartridge Yield – Up to 440 standard pages

Estimated supplemental Color Cartridge Yield – Up to 3,511 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
10B	K (Black)	285	3	283	12/17	Primary
10C	Color	427	4	424	9/11	Primary

Using 19752 Test Page						
Cartridge Identifier	Color	Average (pages)	Standard Deviation (pages)	90% Lower Confidence (pages)	Number used in calculations/test	Primary/ Supplemental
10B	K (Black)	441	2	440	24/24	Primary
10C	Color	3,526	9	3,511	3/3	Supplemental

<b>Printer Identifier</b>	<b>Kodak ESP 6150</b>
Printer Manufacturer	Kodak
Cartridge Identifier	Black Ink Cartridge 10B & Color Ink Cartridge 10C
Cartridge Type	Separate ink supply and print head
Date Tested	5/21/2010 – 5/24/2010
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	The latest driver available was downloaded from Kodak's United States website. Driver Version = 5.1.6.0 The following driver settings were changed from default: Paper type = Changed to KODAK ULTRA Premium Photo – High Gloss from Auto Select

## Declaration of Yield

<p><b>Inkjet Cartridge Yield when tested in Kodak ESP 6150:</b></p> <p>Using the QualityLogic Color Photo test suite provides the following results:  Average Color Cartridge Yield – Up to 173 standard pages  Estimated Average K (Black) Cartridge Yield – Up to 1,275 standard pages</p> <p>Values obtained by continuous printing. Declared yield values in accordance with QualityLogic Color Photo Yield Test Methodology</p>
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Cartridge Identifier	Color	Average (pages)	Standard Deviation (pages)	90% Lower Confidence (pages)	Number used in calculations/test	Primary/ Supplemental
10C	Color	176	5	173	9/9	Primary
10B	K (Black)	1,310	21	1,275	3/3	Supplemental

<b>Printer Identifier</b>	<b>Kodak ESP 7250</b>
Printer Manufacturer	Kodak
Cartridge Identifier	Black Ink Cartridge 10B & Color Ink Cartridge 10C
Cartridge Type	Separate ink supply and print head
Date Tested	4/1/2010 – 4/13/2010
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 = 5.1.6.0 The following driver settings were changed from default: Color Ink Test: Paper type = Changed to Plain Paper from Auto Select Mono Ink Test: Paper type = Changed to Plain Paper from Auto Select Color Printing = Changed to Black and White from Color

## Declaration of Yield

<p><b>Inkjet Cartridge Yield when tested in Kodak ESP 7250:</b></p> <p>Using the test suite defined in ISO/IEC 24712 provides the following results: Average K (Black) Cartridge Yield – Up to 284 standard pages Average Color Cartridge Yield – Up to 426 standard pages</p> <p>Using the test page defined in ISO/IEC 19752 provides the following results: Average K (Black) Cartridge Yield – Up to 444 standard pages Estimated supplemental Cyan Cartridge Yield – Up to 3,546 standard pages</p> <p>Values obtained by continuous printing. Declared yield values in accordance with ISO/IEC 24711</p>
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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 10B	K (Black)	285	1	284	12/18	Primary
Color Ink Cartridge 10C	Color	428	3	426	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 10B	K (Black)	445	2	444	24/24	Primary
Color Ink Cartridge 10C	Color	3,556	6	3,546	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>Kodak ESP 7250</b>
Printer Manufacturer	Kodak
Cartridge Identifier	Black Ink Cartridge 10B & Color Ink Cartridge 10C
Cartridge Type	Separate ink supply and print head
Date Tested	4/5/2010 – 4/6/2010
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 = 5.1.6.0 The following driver settings were changed from default: Paper type = Changed to KODAK ULTRA Premium Photo – High Gloss from Auto Select

## Declaration of Yield

### Inkjet Cartridge Yield when tested in Kodak ESP 7250:

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

Average Color Cartridge Yield – Up to 179 standard pages

Estimated supplemental K (Black) Cartridge Yield – Up to 1,205 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
10C	Color	180	1	179	9/9	Primary
10B	K (Black)	1,256	31	1,205	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 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

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>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 MX330</b>
Printer Manufacturer	Canon
Cartridge Identifier	PG-210, CL-211
Cartridge Type	Integral ink supply and print head
Date Tested	October 15, 2009 to October 22, 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 = 04/25/2009, 2.27.2.10

## Declaration of Yield

### Inkjet Cartridge Yield when tested in Canon PIXMA MX330:

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

Average K (Black) Cartridge Yield: Up to 288 standard pages

Average Tri-color Cartridge Yield: Up to 265 standard pages

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

Average K (Black) Cartridge Yield: Up to 286 standard pages

Estimated supplemental Tri-color Cartridge Yield: Up to 2,738 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-210	K (Black)	297	14	288	9/12	Primary
CL-211	Tri-color	268	6	265	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-210	K (Black)	296	15	286	9/9	Primary
CL-211	Tri-color	2,868	77	2,738	3/3	Supplemental

<b>Printer Identifier</b>	<b>Canon PIXMA MX330</b>
Printer Manufacturer	Canon
Cartridge Identifier	PG-210, CL-211
Cartridge Type	Integral ink supply and print head
Date Tested	October 23, 2009 to October 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 1/2" x 11" photo paper
Media used	Canon Photo Paper Plus Glossy II, High Gloss (PP-201).
Driver version	Driver Version = 04/25/2009, 2.27.2.10 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 MX330:

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

Average Tri-color Cartridge Yield: Up to 92 standard pages

Estimated supplemental K (Black) Cartridge Yield: Up to 1,336 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-211	Tri-color	92	1	92	9/9	Primary
PG-210	K (Black)	1,506	101	1,336	3/3	Supplemental

<b>Printer Identifier</b>	<b>Canon PIXMA MX860</b>
Printer Manufacturer	Canon
Cartridge Identifier	PGI-220BK, CLI-221C, CLI-221M, CLI-221Y, CLI-221BK
Cartridge Type	Separate ink supply and print head
Date Tested	October 21, 2009 to October 27, 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 = 05/26/2009, 2.27.2.10

### Declaration of Yield

#### Inkjet Cartridge Yield when tested in Canon PIXMA MX860:

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

- Average K (Black) Cartridge Yield – Up to 329 standard pages
- Average Cyan Cartridge Yield – Up to 564 standard pages
- Average Magenta Cartridge Yield – Up to 522 standard pages
- Average Yellow Cartridge Yield – Up to 553 standard pages
- Estimated supplemental Photo Black Cartridge Yield – Up to 5,054 standard pages

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

- Average K (Black) Cartridge Yield – Up to 360 standard pages
- Estimated supplemental Cyan Cartridge Yield – Up to 3,421 standard pages
- Estimated supplemental Magenta Cartridge Yield – Up to 3,703 standard pages
- Estimated supplemental Yellow Cartridge Yield – Up to 4,984 standard pages
- Estimated supplemental Photo Black Cartridge Yield – Up to 7,966 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
PGI-220BK	K (Black)	337	16	329	14/20	Primary
CLI-221C	Cyan	577	21	564	9/12	Primary
CLI-221M	Magenta	536	22	522	9/15	Primary
CLI-221Y	Yellow	564	18	553	9/15	Primary
CLI-221BK	Photo Black	5,874	486	5,054	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 (Black)	367	11	360	9/9	Primary
CLI-221C	Cyan	3,748	194	3,421	3/3	Supplemental
CLI-221M	Magenta	4,112	242	3,703	3/3	Supplemental
CLI-221Y	Yellow	5,555	339	4,984	3/3	Supplemental
CLI-221BK	Photo Black	9,144	699	7,966	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 MX860</b>
Printer Manufacturer	Canon
Cartridge Identifier	PGI-220BK, CLI-221C, CLI-221M, CLI-221Y, CLI-221BK
Cartridge Type	Separate ink supply and print head
Date Tested	October 27, 2009 to October 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	4" x 6" borderless photo on 8 ½" x 11" photo paper
Media used	Canon Photo Paper Plus Glossy II, High Gloss (PP-201)
Driver version	Driver Version = 05/26/2009, 2.27.2.10 Media Type = Changed to Photo Paper Plus Glossy II from Plain Paper Print Quality = Changed to High from Standard Paper Source = Changed to Rear Tray from Automatically Select

### Declaration of Yield

#### Inkjet Cartridge Yield when tested in Canon PIXMA MX860:

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

- Average Cyan Cartridge Yield – Up to 198 standard pages
- Average Magenta Cartridge Yield – Up to 217 standard pages
- Average Yellow Cartridge Yield – Up to 220 standard pages
- Estimated supplemental Photo Black Cartridge Yield – Up to 600 standard pages
- Estimated supplemental K (Black) Cartridge Yield – Up to 1,796 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
CLI-221C	Cyan	206	12	198	9/12	Primary
CLI-221M	Magenta	222	8	217	9/10	Primary
CLI-221Y	Yellow	225	8	220	9/9	Primary
CLI-221BK	Photo Black	675	44	600	3/5	Supplemental
PGI-220BK	K (Black)	1,875	46	1,796	3/3	Supplemental

<b>Printer Identifier</b>	<b>Epson Stylus CX8300</b>
Printer Manufacturer	Epson
Cartridge Identifier	T0731, T0732, T0733, T0734
Cartridge Type	Separate ink supply and print head
Date Tested	April 3, 2008 to April 7, 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=5/11/2007, 6.50.00.00 The following driver settings were changed from default: Color Ink Test: The drivers default settings were used for testing. Mono Ink Test: Calidad de impresion = Changed to Texto from Texto e imagenes. The "Solo tinta negra" option was enabled in the Avanzado tab.

## Declaration of Yield

### Inkjet Cartridge Yield when tested in Epson Stylus CX8300:

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

- Average K (Black) Cartridge Yield – Up to 245 standard pages
- Average Cyan Cartridge Yield – Up to 390 standard pages
- Average Magenta Cartridge Yield – Up to 289 standard pages
- Average Yellow Cartridge Yield – Up to 411 standard pages

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

- Average K (Black) Cartridge Yield – Up to 247 standard pages
- Estimated supplemental Cyan Cartridge Yield – Up to 1,465 standard pages
- Estimated supplemental Magenta Cartridge Yield – Up to 2,114 standard pages
- Estimated supplemental Yellow Cartridge Yield – Up to 2,312 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
T0731	K (Black)	249	10	245	15/20	Primary
T0732	Cyan	399	15	390	9/15	Primary
T0733	Magenta	297	15	289	12/18	Primary
T0734	Yellow	422	18	411	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
T0731	K (Black)	254	12	247	9/9	Primary
T0732	Cyan	1,713	147	1,465	3/3	Supplemental
T0733	Magenta	2,526	245	2,114	3/3	Supplemental
T0734	Yellow	2,536	133	2,312	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 CX8300</b>
Printer Manufacturer	Epson
Cartridge Identifier	T0731, T0732, T0733, T0734
Cartridge Type	Separate ink supply and print head
Date Tested	April 8, 2008 to April 11, 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=5/11/2007, 6.50.00 The following driver settings were changed from default: Calidad de impresion = Changed to Foto superior from Texto e imagenes. Papel = Changed to Premium Photo Paper Glossy from Papel normal / Bright White paper. Opciones de papel y calidad de impresion = Changed to Photo RPM from Normal.

## Declaration of Yield

### Inkjet Cartridge Yield when tested in Epson Stylus CX8300:

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

- Average Cyan Cartridge Yield – Up to 85 standard pages
- Average Magenta Cartridge Yield – Up to 86 standard pages
- Average Yellow Cartridge Yield – Up to 114 standard pages
- Estimated supplemental K (Black) Cartridge Yield – Up to 468 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
T0731	Cyan	88	4	85	11/13	Primary
T0732	Magenta	88	3	86	10/12	Primary
T0733	Yellow	118	5	114	9/9	Primary
T0734	K (Black)	535	40	468	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 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 = 61.73.245.0 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 HP 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 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	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 HP 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

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 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:

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 1/2" 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:

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 Premium</b>
Printer Manufacturer	Hewlett Packard
Cartridge Identifier	HP 564 – CB316WN, CB318WN, CB319WN, CB320WN, CB317WN
Cartridge Type	Separate ink supply and print head
Date Tested	3/26/2010 – 3/30/2010
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	The latest driver available was downloaded from Hewlett-Packard's United States website. Driver Version = 70.101.203.0 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 Premium (CD055A):

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

- Average K (Black) Cartridge Yield – Up to 298 standard pages
- Average Cyan Cartridge Yield – Up to 278 standard pages
- Average Magenta Cartridge Yield – Up to 278 standard pages
- Average Yellow Cartridge Yield – Up to 278 standard pages
- Estimated supplemental K (Photo Black) Cartridge Yield – Up to 1,894 standard pages

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

- Average K (Black) Cartridge Yield – Up to 344 standard pages
- Estimated supplemental Cyan Cartridge Yield – Up to 2,513 standard pages
- Estimated supplemental Magenta Cartridge Yield – Up to 2,924 standard pages
- Estimated supplemental Yellow Cartridge Yield – Up to 3,239 standard pages
- Estimated supplemental K (Photo Black) Cartridge Yield – Up to 6,593 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)	313	24	298	9/12	Primary
HP 564 (CB318WN)	Cyan	285	11	278	9/15	Primary
HP 564 (CB319WN)	Magenta	285	11	278	9/15	Primary
HP 564 (CB320WN)	Yellow	285	11	278	9/15	Primary
HP 564 (CB317WN)	K (Photo Black)	2,092	117	1,894	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
HP 564 (CB316WN)	K (Black)	355	19	344	9/9	Primary
HP 564 (CB318WN)	Cyan	2,629	69	2,513	3/3	Supplemental
HP 564 (CB319WN)	Magenta	3,039	68	2,924	3/3	Supplemental
HP 564 (CB320WN)	Yellow	3,502	156	3,239	3/3	Supplemental
HP 564 (CB317WN)	K (Photo Black)	7,266	399	6,593	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 Premium</b>
Printer Manufacturer	Hewlett Packard
Cartridge Identifier	HP 564 - CB316WN, CB318WN, CB319WN, CB320WN, CB317WN
Cartridge Type	Separate ink supply and print head
Date Tested	3/31/2010 - 4/2/2010
EOL Criteria	Fade was used as the EOL criteria.
Print mode used	Continuous
Paper Size	4" x 6" borderless photo on 8 1/2" x 11" photo paper
Media used	HP Premium Plus Photo Paper, High Gloss (Q1785A)
Driver version	The latest driver available was downloaded from Hewlett-Packard's United States website. Driver Version = 70.101.203.0 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

<p><b>Inkjet Cartridge Yield when tested in HP Photosmart Premium (CD055A):</b></p> <p>Using the QualityLogic Color Photo test suite provides the following results:</p> <ul style="list-style-type: none"> <li>Average Cyan Cartridge Yield - Up to 97 standard pages</li> <li>Average Magenta Cartridge Yield - Up to 185 standard pages</li> <li>Average Yellow Cartridge Yield - Up to 132 standard pages</li> <li>Average K (Photo Black) Cartridge Yield - Up to 147 standard pages</li> <li>Estimated supplemental K (Black) Cartridge Yield - Up to 1,999 standard pages</li> </ul> <p>Values obtained by continuous printing. Declared yield values in accordance with QualityLogic Color Photo Yield Test Methodology</p>
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Cartridge Identifier	Color	Average (pages)	Standard Deviation (pages)	90% Lower Confidence (pages)	Number used in calculations/test	Primary/ Supplemental
HP 564 (CB318WN)	Cyan	103	12	97	15/18	Primary
HP 564 (CB319WN)	Magenta	194	15	185	9/9	Primary
HP 564 (CB320WN)	Yellow	138	12	132	12/15	Primary
HP 564 (CB317WN)	K (Photo Black)	161	22	147	9/12	Primary
HP 564 (CB316WN)	K (Black)	2,197	118	1,999	3/3	Supplemental

<b>Printer Identifier</b>	<b>HP Officejet J4580</b>
Printer Manufacturer	Hewlett-Packard
Cartridge Identifier	HP 901 - CC653AN, 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	Driver Version = 11/05/2007,61.073.242.00

### Inkjet Cartridge Yield when tested in HP Officejet J4580:

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, 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	Driver Version = 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

**Inkjet Cartridge Yield when tested in HP Officejet J4580:**

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

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 6500</b>
Printer Manufacturer	Hewlett-Packard
Cartridge Identifier	HP 920XL - CD975AE, CD972AE, CD973AE, CD974AE
Cartridge Type	Separate ink supply and print head
Date Tested	May 8, 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	A4
Media used	Hammermill Fore Multi-Purpose, 96 Brightness 20lb. weight
Driver version	Driver version = 70.82.15.0 The following driver settings were changed from default: Paper type = Changed to Plain paper from Automatic Paper sizes = Changed to A4 210x297mm from Letter 8.5x11in.

## Declaration of Yield

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

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

- Average K (Black) Cartridge Yield – Up to 1,089 standard pages
- Average Cyan Cartridge Yield – Up to 528 standard pages
- Average Magenta Cartridge Yield – Up to 532 standard pages
- Average Yellow Cartridge Yield – Up to 506 standard pages

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

- Average K (Black) Cartridge Yield – Up to 1,126 standard pages
- Estimated supplemental Cyan Cartridge Yield – Up to 5,264 standard pages
- Estimated supplemental Magenta Cartridge Yield – Up to 5,992 standard pages
- Estimated supplemental Yellow Cartridge Yield – Up to 6,726 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 920XL (CD975AE)	K (Black)	1,091	4	1,089	9/12	Primary
HP 920XL (CD972AE)	Cyan	531	6	528	18/24	Primary
HP 920XL (CD973AE)	Magenta	535	8	532	18/24	Primary
HP 920XL (CD974AE)	Yellow	509	8	506	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
HP 920XL (CD975AE)	K (Black)	1,130	5	1,126	9/9	Primary
HP 920XL (CD972AE)	Cyan	5,531	158	5,264	3/3	Supplemental
HP 920XL (CD973AE)	Magenta	6,204	126	5,992	3/3	Supplemental
HP 920XL (CD974AE)	Yellow	7,081	211	6,726	3/3	Supplemental

<b>Printer Identifier</b>	<b>HP Officejet 6500</b>
Printer Manufacturer	Hewlett-Packard
Cartridge Identifier	HP 920XL - CD975AE, CD972AE, CD973AE, CD974AE
Cartridge Type	Separate ink supply and print head
Date Tested	May 20, 2009 to May 22, 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 210 x 297mm photo paper
Media used	HP Premium Plus Photo Paper, Q1786A
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 Paper sizes = Changed to A4 210x297mm from Letter 8.5x11in.

## 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 148 standard pages
- Average Magenta Cartridge Yield – Up to 206 standard pages
- Average Yellow Cartridge Yield – Up to 159 standard pages
- Estimated supplemental K (Black) Cartridge Yield – Up to 7,487 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 920XL (CD972AE)	Cyan	150	3	148	12/15	Primary
HP 920XL (CD973AE)	Magenta	206	1	206	9/9	Primary
HP 920XL (CD974AE)	Yellow	159	-	159	9/12	Primary
HP 920XL (CD975AE)	K (Black)	8,106	367	7,487	3/3	Supplemental

<b>Printer Identifier</b>	<b>Lexmark Intuition S505</b>
Printer Manufacturer	Lexmark
Cartridge Identifier	100 Black, 100 Cyan, 100 Magenta, 100 Yellow
Cartridge Type	Separate ink supply and print head
Date Tested	4/26/2010 - 5/3/2010
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	A4
Media used	Hammermill Fore Multi-Purpose, 96 Brightness 20lb. weight
Driver version	Driver Version = 0.0.0.1 The following driver settings were changed from default: Color Ink Test: Paper Type = Changed to Plain Paper from Automatic Paper size = Changed to A4 (210 x x297 mm) from Letter (8 ½ x 11 in) Mono Ink Test = Paper Type = Changed to Plain Paper from Automatic Paper size = Changed to A4 (210 x 297 mm) from Letter (8 ½ x 11 in) Ink Use = Changed to Print using black ink from Print using all available ink.

## Declaration of Yield

### Inkjet Cartridge Yield when tested in Lexmark Intuition S505:

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

- Average K (Black) Cartridge Yield – Up to 228 standard pages
- Average Cyan Cartridge Yield – Up to 290 standard pages
- Average Magenta Cartridge Yield – Up to 236 standard pages
- Average Yellow Cartridge Yield – Up to 272 standard pages

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

- Average K (Black) Cartridge Yield – Up to 252 standard pages
- Estimated supplemental Cyan Cartridge Yield – Up to 4,018 standard pages
- Estimated supplemental Magenta Cartridge Yield – Up to 4,015 standard pages
- Estimated supplemental Yellow Cartridge Yield – Up to 4,515 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
100 Black	K (Black)	234	11	228	9/15	Primary
100 Cyan	Cyan	296	10	290	9/12	Primary
100 Magenta	Magenta	239	6	236	9/15	Primary
100 Yellow	Yellow	280	12	272	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
100 Black	K (Black)	258	9	252	9/9	Primary
100 Cyan	Cyan	4,104	51	4,018	3/3	Supplemental
100 Magenta	Magenta	4,235	131	4,015	3/3	Supplemental
100 Yellow	Yellow	4,560	27	4,515	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>Lexmark Intuition S505</b>
Printer Manufacturer	Lexmark
Cartridge Identifier	100 Black, 100 Cyan, 100 Magenta, 100 Yellow
Cartridge Type	Separate ink supply and print head
Date Tested	5/4/2010 – 5/7/2010
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 210 x 297mm photo paper
Media used	Lexmark Perfectfinish Photo paper (3048567)
Driver version	Driver Version = 0.0.0.1 The following driver settings were changed from default: Quality = Changed to Best from Automatic Paper Type = Changed to Lexmark Perfectfinish Photo paper from Automatic Paper size = Changed to A4 (210 x 297 mm) from Letter (8 ½ x 11 in)

## Declaration of Yield

### Inkjet Cartridge Yield when tested in Lexmark Intuition S505:

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

- Average Cyan Cartridge Yield – Up to 64 standard pages
- Average Magenta Cartridge Yield – Up to 77 standard pages
- Average Yellow Cartridge Yield – Up to 91 standard pages
- Estimated supplemental K (Black) Cartridge Yield – Up to 603 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
100 Cyan	Cyan	66	5	64	12/15	Primary
100 Magenta	Magenta	80	5	77	9/12	Primary
100 Yellow	Yellow	93	4	91	9/9	Primary
100 Black	K (Black)	650	28	603	3/3	Supplemental

<b>Printer Identifier</b>	<b>Lexmark Prevail Pro705</b>
Printer Manufacturer	Lexmark
Cartridge Identifier	100 series
Cartridge Type	Separate ink supply and print head
Date Tested	October 28, 2009 to November 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 = 1.2.0.0 The following driver settings were changed from default: Color Ink: Paper Type = Changed to Plain Paper from Automatic Mono Ink: Paper Type = Changed to Plain Paper from Automatic Print using black ink only was enabled under Ink Use

## Declaration of Yield

### Inkjet Cartridge Yield when tested in Lexmark Prevail Pro705:

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 286 standard pages
- Average Magenta Cartridge Yield – Up to 237 standard pages
- Average Yellow Cartridge Yield – Up to 269 standard pages

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

- Average K (Black) Cartridge Yield – Up to 260 standard pages
- Estimated supplemental Cyan Cartridge Yield – Up to 2,826 standard pages
- Estimated supplemental Magenta Cartridge Yield – Up to 2,903 standard pages
- Estimated supplemental Yellow Cartridge Yield – Up to 2,906 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
100 Black	K (Black)	246	12	239	9/15	Primary
100 Cyan	Cyan	291	9	286	9/12	Primary
100 Magenta	Magenta	244	12	237	9/15	Primary
100 Yellow	Yellow	272	4	269	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
100 Black	K (Black)	264	7	260	9/9	Primary
100 Cyan	Cyan	3,119	174	2,826	3/3	Supplemental
100 Magenta	Magenta	3,250	206	2,903	3/3	Supplemental
100 Yellow	Yellow	3,327	250	2,906	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>Lexmark Prevail Pro705</b>
Printer Manufacturer	Lexmark
Cartridge Identifier	100 series
Cartridge Type	Separate ink supply and print head
Date Tested	November 6, 2009 to November 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 1/2" x 11" photo paper
Media used	Lexmark PerfectFinish Photo Paper, High Gloss (19Y0170)
Driver version	Driver Version = 1.2.0.0 The following driver settings were changed from default: Paper Type = Changed to Lexmark Perfectfinish Photo Paper from Automatic Print Setup = Changed to Best from Automatic

### Declaration of Yield

#### Inkjet Cartridge Yield when tested in Lexmark Prevail Pro705:

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

- Average Cyan Cartridge Yield – Up to 67 standard pages
- Average Magenta Cartridge Yield – Up to 80 standard pages
- Average Yellow Cartridge Yield – Up to 87 standard pages
- Estimated supplemental K (Black) Cartridge Yield – Up to 584 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
100 Cyan	Cyan	69	3	67	10/12	Primary
100 Magenta	Magenta	83	5	80	9/12	Primary
100 Yellow	Yellow	91	6	87	9/9	Primary
100 Black	K (Black)	633	29	584	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>Lexmark X4850</b>
Printer Manufacturer	Lexmark
Cartridge Identifier	42A, 41A
Cartridge Type	Integral ink supply and print head
Date Tested	March 17, 2008 to March 20, 2008
EOL Criteria	Fade was used as the EOL criteria.
Print mode used	Continuous
Paper Size	A4
Media used	HammerMill Fore MP-White, 96 Brightness 20lb. weight
Driver version	Driver Version = 05/29/2007, 1.0.5.1 The following driver settings were changed from default: Paper Type = Changed to Use my choice: Plain from Use printer sensor Paper Size = Changed to A4 (210 x 297 mm) from Letter (8 ½ x 11 in)

## Declaration of Yield

### Inkjet Cartridge Yield when tested in Lexmark X4850:

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

Average K (Black) Cartridge Yield – Up to 214 standard pages

Average Tri-Color Cartridge Yield – Up to 258 standard pages

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

Average K (Black) Cartridge Yield – Up to 223 standard pages

Estimated supplemental Tri-Color Cartridge Yield – Up to 2,759 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
42A	K (Black)	228	23	214	9/12	Primary
41A	Tri-color	274	26	258	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
42A	K (Black)	232	13	223	9/9	Primary
41A	Tri-color	2,985	134	2,759	3/3	Supplemental

<b>Printer Identifier</b>	<b>Lexmark X4850</b>
Printer Manufacturer	Lexmark
Cartridge Identifier	42A, 41A
Cartridge Type	Integral ink supply and print head
Date Tested	March 3, 2008 to March 4, 2008
EOL Criteria	Fade was used as the EOL criteria.
Print mode used	Continuous
Paper Size	4" x 6" borderless photo on 210 x 297mm photo paper
Media used	Lexmark PerfectFinish Photo Paper (19Y0205)
Driver version	Driver Version = 05/29/2007, 1.0.5.1 The following driver settings were changed from default: Quality/Speed = Changed to Photo from Automatic Paper Type = Changed to Use my choice: Lexmark PerfectFinish Photo from Use paper sensor Paper Size = Changed to A4 (210 x 297 mm) from Letter (8 ½ x 11 in)

### Declaration of Yield

#### Inkjet Cartridge Yield when tested in Lexmark X4850:

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

Average Tri-Color Cartridge Yield – Up to 56 standard pages

Estimated supplemental K (Black) Cartridge Yield – Up to 3,262 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
41A	Tri-color	58	3	56	9/12	Primary
42A	K (Black)	3,593	196	3,262	3/3	Supplemental

## Appendix C: Test Pages

### ISO/IEC 24712 Test Suite



### ISO/IEC 19752 Test Page



## QualityLogic Photo Test Suite

