

Environmental Corrections

08.2014 Dak

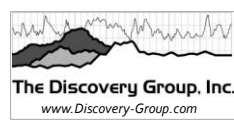
The corrections listed here are those that appear in the chartbooks listed below, and do not include those done by logging company software.

Measurement	SP						Gamma Ray						Bulk Density						Photoelectric Effect PE						Neutron Porosity						Shallow Resistivity						Deep Resistivity										
	BakerAtlas	BakerHughesINTEO	Halliburton	Sperry	Schlumberger (WL)	Schlumberger (LWD)	Weatherford (WL)	Weatherford (LWD)	BakerAtlas	BakerHughesINTEO	Halliburton	Sperry	Schlumberger (WL)	Schlumberger (LWD)	Weatherford (WL)	Weatherford (LWD)	BakerAtlas	BakerHughesINTEO	Halliburton	Sperry	Schlumberger (WL)	Schlumberger (LWD)	Weatherford (WL)	Weatherford (LWD)	BakerAtlas	BakerHughesINTEO	Halliburton	Sperry	Schlumberger (WL)	Schlumberger (LWD)	Weatherford (WL)	Weatherford (LWD)	BakerAtlas	BakerHughesINTEO	Halliburton	Sperry	Schlumberger (WL)	Schlumberger (LWD)	Weatherford (WL)	Weatherford (LWD)							
Environmental Corrections fill color shows corrections																																															
air-filled borehole																																															
barite mud																																															
bed thickness																																															
borehole salinity																																															
borehole size																																															
casing thickness																																															
cement thickness																																															
centering																																															
formation salinity																																															
invasion																																															
KCl mud correction																																															
lithology																																															
mud cake																																															
mud weight																																															
pressure																																															
standoff																																															
temperature																																															
thermal neutron absorber																																															

Sources:
 Baker Atlas, 2003, Log Interpretation Charts: Baker Hughes Incorporated.
 Halliburton, 1994, Log Interpretation Charts, EL 1001
 Schlumberger, 2013, Log Interpretation Charts, 2013 Edition, 13-FE-0034: Schlumberger, Houston, Texas.
 Weatherford, 2007, Log Interpretation Charts Compact Tool Series: Weatherford, Houston, Texas.
 Weatherford, 2006, LWD Log Interpretation Chart Book

Date of last changes: 25 August 2014

Colored cells indicate the corrections that are shown in company chartbooks. The colors are those which are often associated (or have been associated) with the particular company. Gray color indicates information was not available at this time.



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Comments:

The Environmental Corrections table is meant to illustrate some of the environmental corrections that can be made to both wireline and LWD openhole measurements. These are corrections that are published as charts, and occasional equations, in logging company chartbooks.

There may be more environmental corrections that can be applied to the measurements, either in realtime (during the logging job) or after the logging job. Those corrections reside as algorithms in logging company proprietary software, and the algorithms are usually more complex and more precise than those shown in the chartbooks.

The intent of this illustration is to give you some idea of the corrections that can be made to measurements. The corrections are intended to take the response of the measurement from the borehole and subsurface conditions at which the measurement was made, and correct the measurement to what it would have been if the borehole conditions were those for which the measurement was designed. By making environmental corrections, measurements in different wells, usually under different conditions, can be quantitatively compared.

This is the “first pass” at compiling the table. The more recent chartbooks were accessed, either in paper or online, and there were some books which were not discovered in this effort. The process will continue. You can help by providing links to missing data.

Baker Hughes INTEQ, Sperry, and PathFinder data was not available at the time of printing.

This document is intended to be updated periodically as necessary to include new and corrected information.

Questions and comments about this document are welcomed and encouraged. Please contact Dan Krygowski at The Discovery Group; DanKrygowski@Discovery-Group.com.