



Weatherford®

**Wireline Services Log Interpretation
Chart Book**



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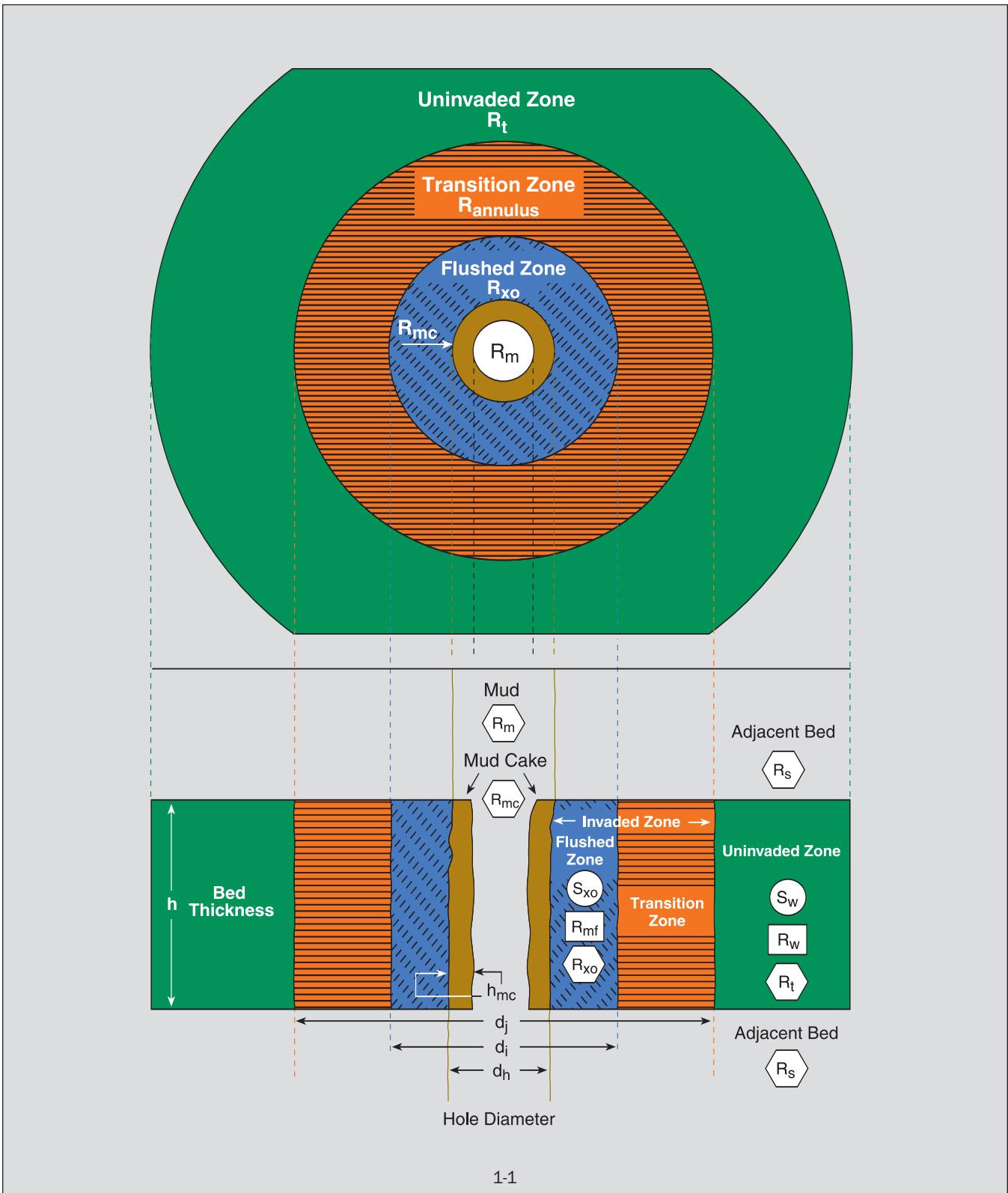


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Section 1

General Information

Borehole Environment and Formation Parameters



Unit Conversions

Length

1 inch (in.)	2.540 cm
1 foot (ft)	30.48 cm
1 meter (m)	39.37 in.
1 meter (m)	3.281 ft

Volume

1 barrel (bbl) of oil	42 U.S. gal
	5.6154 ft ³
	158.98 L
1 U.S. gallon (gal)	231.00 in. ³
	0.1337 ft ³
	3.785 L
1 L (1000 cm ³)	0.03532 ft ³
	0.2642 U.S. gal
	0.001 m ³
1 acre	7,758 bbl
	43,560 ft ³
	1233 m ³
1 cubic foot (ft ³)	7.481 U.S. gal
	28.32 L
1 imperial gal (England, Canada, Australia, etc)	1.2009 U.S. gal
	4.546 L

Mass

1 grain	0.0001429 (or 1/7000 lb)
	0.6480 g
1 pound (lb)	0.4536 kg
1 metric ton (1000 kg)	2205 lb

Density, Specific Gravity, etc.

1 gram per cubic centimeter (g/cm ³)	62.43 lb/ft ³
	8.345 lb/gal
1 U.S. gallon of liquid weighs (in lb)	8.345 multiplied by density in g/cm ³
1 imperial gallon of water at 62°F weighs	10 lb

Oil Gravity in degrees API is computed as:

$$^{\circ}\text{API} = \frac{141.5}{\text{Spec. Grav. @ } 60^{\circ}\text{F}} - 131.5$$

Pressure

1 atmosphere (atm)	14.70 psi
	1.0332 kPa
1 pound per square inch (psi)	6.89 kPa
	.06894 bar

1 kilogram per square centimeter (kg/cm²) 14.22 psi

Pressure Gradient	=	0.433 x kPa/m
psi/ft	=	lb/ft ³ /144
	=	lb/gal/19.27

kPa	=	0.433 x kPa
	=	psi/ft x 0.231

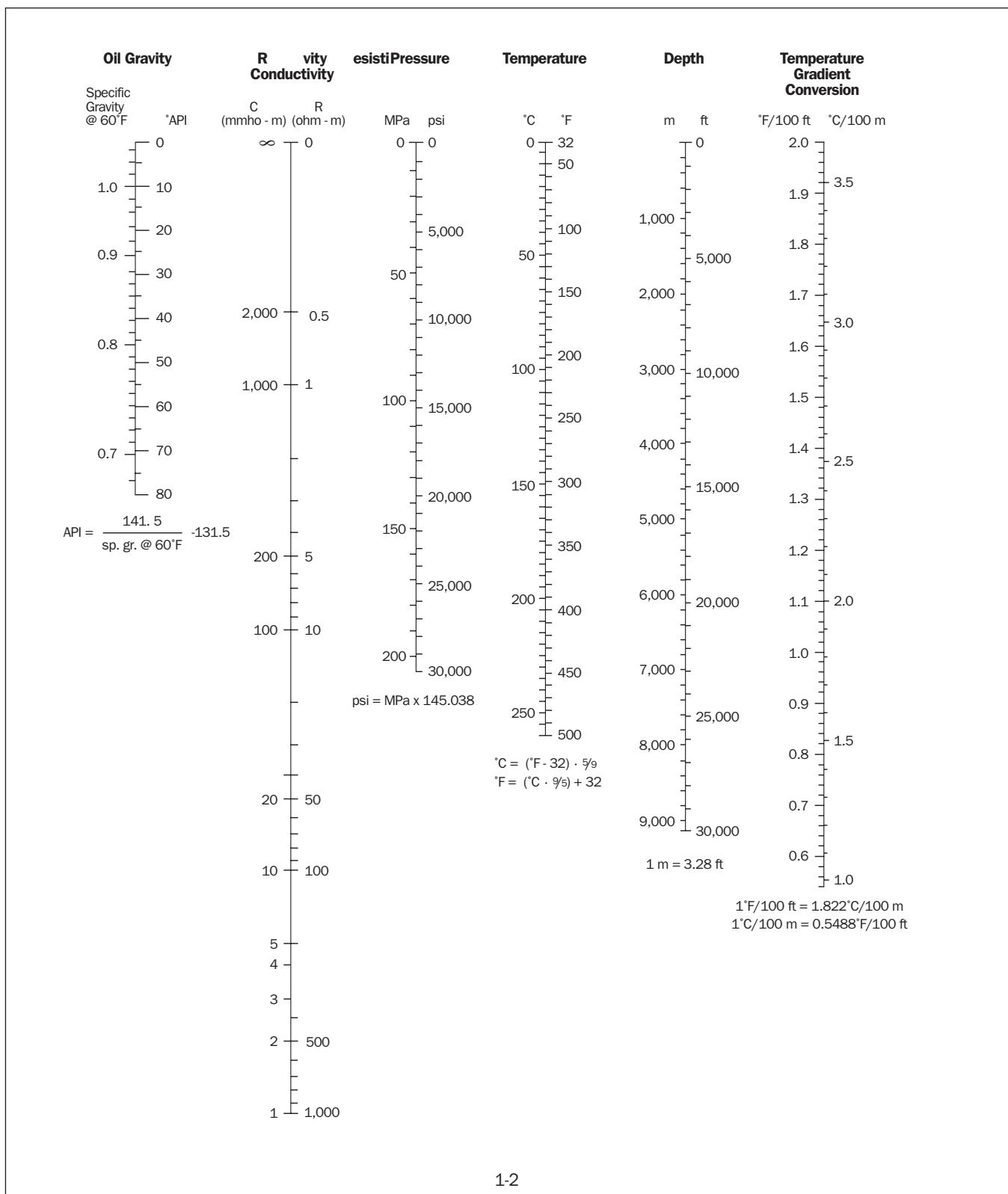
Temperature Conversions

°F	=	1.8°C + 32
°C	=	(°F - 32)/1.8 x °C
°R (Rankine)	=	°F + 459.69
K (kelvin)	=	°C + 273.16

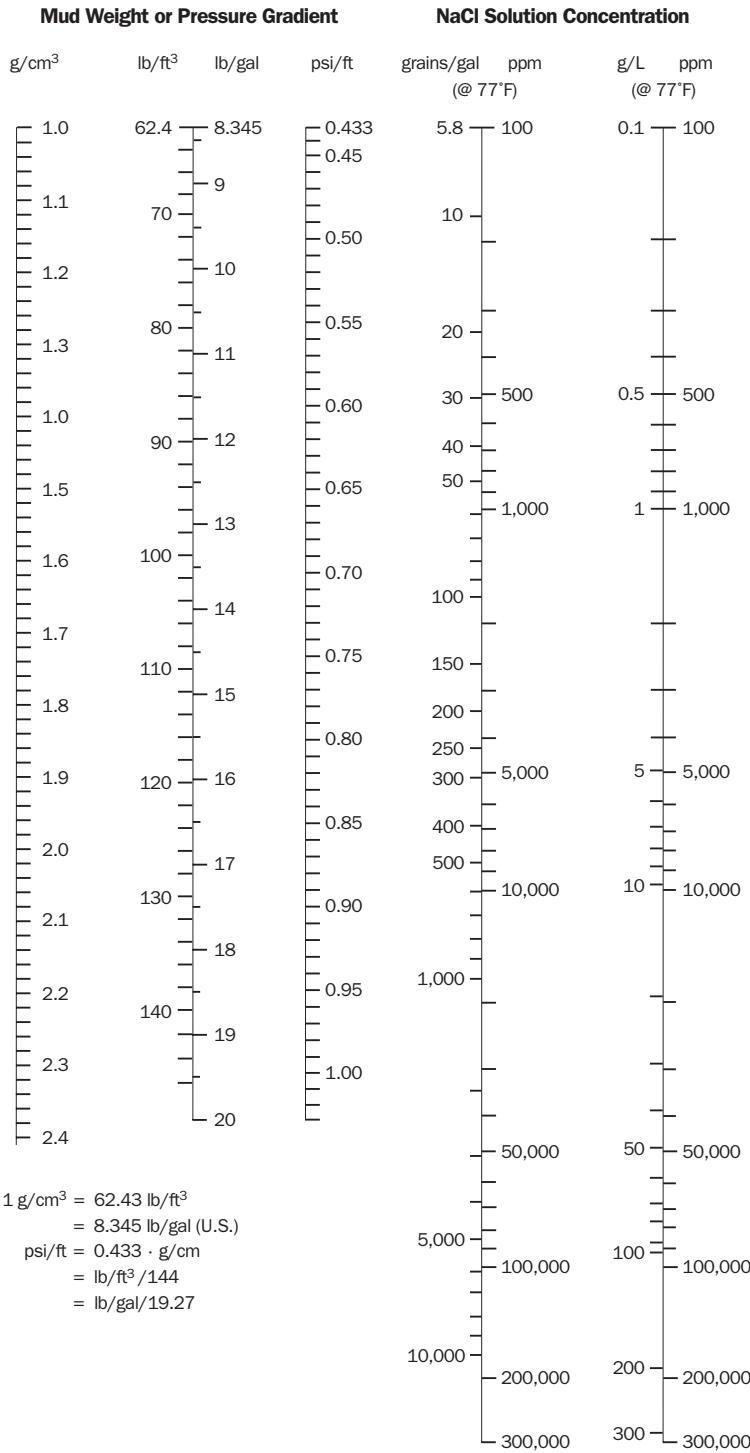
Concentration

1 grain/U.S. gal	17.118 ppm
1 gram/L	58.417 grains/gal

Unit Conversions



Unit Conversions



Logging Tool Response in Sedimentary Minerals

Name	Formula	ρ_{LOG} g/cm ³	ϕ_{CNT} p.u.	Δt_c μs/ft	Δt_s μs/ft	P_e barn/elect	U barn/cm ³	GR API units	Σ c.u.
Silicates									
Quartz	SiO ₂	2.64	-1.9	55	77	1.81	4.78	—	4.26
Cristobalite	SiO ₂	2.30	-2.9			1.81	4.16	—	3.75
Opal (3.5% H ₂ O)	SiO ₂ (H ₂ O) ₁₂₀₉	2.12	2.0	58		1.75	3.71	—	4.80
Garnet	Fe ₃ Al ₂ (SiO ₄) ₃	4.31	6.0	36	64	11.09	47.80	—	45.0
Hornblende	Ca ₂ NaMg ₂ Fe ₂ AlSi ₈ O ₂₂ (O,OH) ₂	3.15	7.0	44	82	5.99	18.87	—	18.0
Tourmaline	NaMg ₃ Al ₆ B ₃ Si ₆ O ₂₂ (OH) ₄	2.98	21			2.14	6.38	—	7485
Carbonates									
Calcite	CaCO ₃	2.71	0	48	89	5.08	13.77	—	7.10
Dolomite	CaCO ₃ MgCO ₃	2.87	1.8	43	73	3.14	9.01	—	4.70
Ankerite	Ca(Mg,Fe)(CO ₃) ₂	2.90	1.0	53	84	9.32	27.03	—	21.0
Siderite	FeCO ₃	3.89	11.5	45	85	14.69	57.14	—	52.5
Oxides									
Hematite	Fe ₂ O ₃	5.18	10.0	45	74	21.48	111	—	101
Magnetite	Fe ₃ O ₄	5.09	8.0	73	155	22.24	113	—	103
Geothite	FeO(OH)	4.28	60+			19.02	81.41	—	84.0
Limonite	FeO(OH)(H ₂ O) _{2.05}	3.60	60+	57	103	13.00	46.80	—	71.0
Gibbsite	Al(OH) ₃	2.49	60+			1.10	2.74	—	26.0
Phosphates									
Hydroxyapatite	Ca ₅ (PO ₄) ₃ OH	3.17	7.5	43	70	5.81	18.42	—	10.50
Chlorapatite	Ca ₅ (PO ₄) ₃ Cl	3.18	-1.0	42		6.06	19.27	—	131
Fluorapatite	Ca ₅ (PO ₄) ₃ F	3.21	-1.5	44	80	5.82	18.68	—	9.00
Carbonapatite	(Ca ₅ (PO ₄) ₃) ₂ CO ₃ H ₂ O	3.13	8.0			5.58	17.47	—	9.09

Reference: "Radioactive Logging Parameters for Common Minerals"; 1979;
 Edmundson, H. and Raymer, L.L., SPWLA 20th Annual Logging Symposium, June, 1979, Tulsa.



Logging Tool Response in Sedimentary Minerals

Name	Formula	ρ_{LOG} g/cm ³	ϕ_{CNT} p.u.	Δt_c μs/ft	Δt_s μs/ft	P_e barn/elect	U barn/cm ³	GR API units	Σ c.u.
Clays									
Kaolinite	$Al_4Si_4O_{10}(OH)_8$	2.60	40	212	328	1.83	4.76	80 - 130	13.2
Chlorite	$(Mg,FeAl)_6(Si,Al)_4O_{10}(OH)_8$	2.76	52			6.30	17.39	180 - 250	25.0
Illite	$K_{1-15}Al_4(Si_{7-6.5}Al_{1-1.5}O_{20})(OH)_4$	2.61	20			3.45	9.00	250 - 300	17.0
Smectite	$(Ca,Na)_7(Al,Mg,Fe)_4(Si,Al)_8O_{20}(OH)_4(H_2O)_n$	2.12	40			2.04	4.32	150 - 200	14.4
Coals									
Anthracite	$CH_{.358}N_{.009}O_{.022}$	1.55	40	105		0.16	0.25	—	9.21
Bituminous	$CH_{.793}N_{.015}O_{.078}$	1.30	60+	120		0.17	0.23	—	16.2
Lignite	$CH_{.849}N_{.015}O_{.211}$	1.05	55	160		0.20	0.21	—	12.8
Micas									
Muscovite	$KAl_2(Si_3AlO_{10})(OH)_2$	2.82	18.0	50	100	2.40	6.77	~ 270	16.9
Glauconite	$K_2(Mg,Fe)_2Al_6(Si_4OH_{10})_3(OH)_2$	2.54	30			6.37	16.18		24.1
Biotite	$K(Mg,Fe)_3(AlSi_3O_{10})(OH)_2$	2.99	20	51	220	6.27	18.75	~ 275	30.0
Phlogopite	$KMg_3(AlSi_3O_{10})(OH)_2$			50	207				33.3
Feldspars									
Orthoclase	$KAlSi_3O_8$	2.53	-2.5	69		2.86	7.24	~ 2 20	15.5
Anorthoclase	$KAlSi_3O_8$	2.56	-1.8	69		2.86	7.32	~ 2 20	15.9
Microcline	$KAlSi_3O_8$	2.56	-2.5	45		2.86	7.32	~ 2 20	15.3
Albite	$NaAlSi_3O_8$	2.60	-1.5	49	85	1.68	4.37	—	7.52
Anorthite	$CaAl_2Si_2O_8$	2.75	-1.7	45		3.13	8.61	—	7.33

Logging Tool Response in Sedimentary Minerals

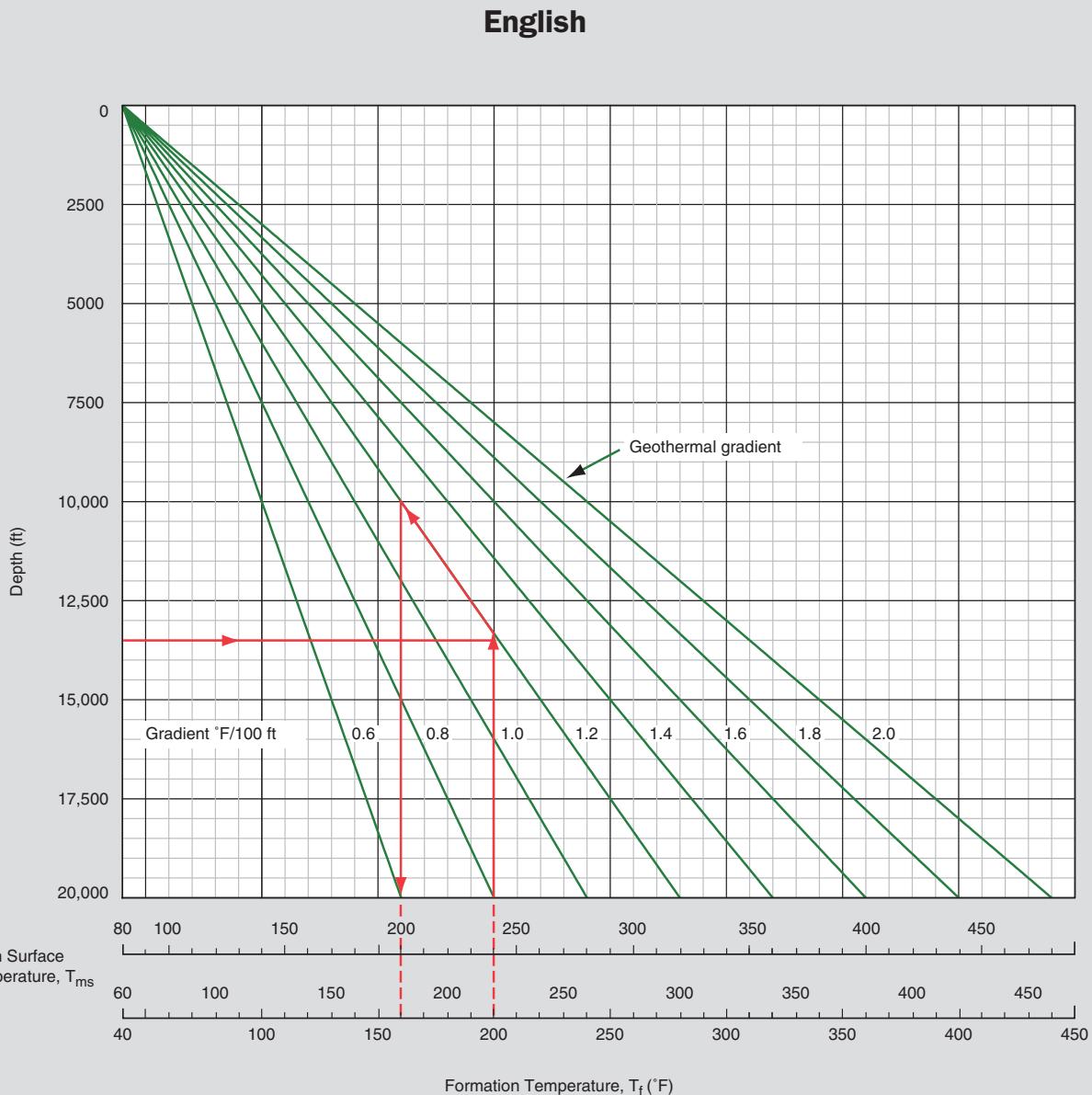
Name	Formula	ρ_{LOG} g/cm ³	ϕ_{CNT} p.u.	Δt_c μs/ft	Δt_s μs/ft	P _e barn/elect	U barn/cm ³	GR API units	Σ c.u.
Evaporites									
Halite	NaCl	2.04	-2.5	67	116	4.65	9.49	—	762
Anhydrite	CaSO ₄	2.98	-1.5	50	98	5.05	15.05	—	12.4
Gypsum	CaSO ₄ (H ₂ O) ₂	2.35	60+	53		3.99	9.38	—	18.6
Trona	Na ₂ CO ₃ NaHCO ₃ H ₂ O	2.09	40	65		0.71	1.48	—	16.9
Tachydrite	CaCl ₂ (MgCl ₂) ₂ (H ₂ O) ₁₂	1.66	60+	92		3.84	6.37	—	406
Sylvite	KCl	1.87	-3.0	74	140	8.51	15.91	500+	561
Carnalite	KClMgCl ₂ (H ₂ O) ₆	1.57	60+	79		4.09	6.42	~ 220	369
Langbenite	K ₂ SO ₄ (MgSO ₄) ₂	2.82	-1.5	52		3.56	10.04	~ 290	24.1
Polyhalite	K ₂ SO ₄ (MgSO ₄) ₂ (CaSO ₄) ₂ (H ₂ O) ₂	2.79	23	58		4.32	12.05	~ 200	23.7
Kainite	MgSO ₄ KCl(H ₂ O) ₃	2.13	60+			3.50	7.46	~ 245	196
Kieserite	MgSO ₄ H ₂ O	2.59	40			1.83	4.74	—	14.0
Epsomite	MgSO ₄ (H ₂ O) ₇	1.71	60+			1.15	1.97	—	21.5
Bischofite	MgCl ₂ (H ₂ O) ₆	1.54	60+	100		2.59	3.99	—	323
Barite	BaSO ₄	4.09	-1.5	69	133	267	1092	—	21.0
Celestite	SrSO ₄	3.79	-1.0	60	149	55.2	209	—	22.4
Phosphates									
Pyrite	FeS ₂	5.00	-2.5	38	59	16.96	84.85	—	90.3
Marcasite	FeS ₂	4.87	-2.6			16.97	82.64	—	88.4
Pyrrhotite	Fe ₇ S ₈	4.54	-2.6	65	111	20.55	93.30	—	94.2
Sphalerite	ZnS	3.93	-2.7	57	108	35.93	141	—	41
Chalopyrite	CuFeS ₂	4.07	-2.3			26.72	109	—	101
Galena	PbS	6.39	-2.8			1631	10422	—	13.4



Section 2

Temperature and Fluids

Estimation of Formation Temperature



Example : Given the following conditions: formation temperature = 220°F, mean surface temperature = 60°F, total well depth = 13,500 ft.

What is the geothermal gradient and formation temperature at 10,000 ft?

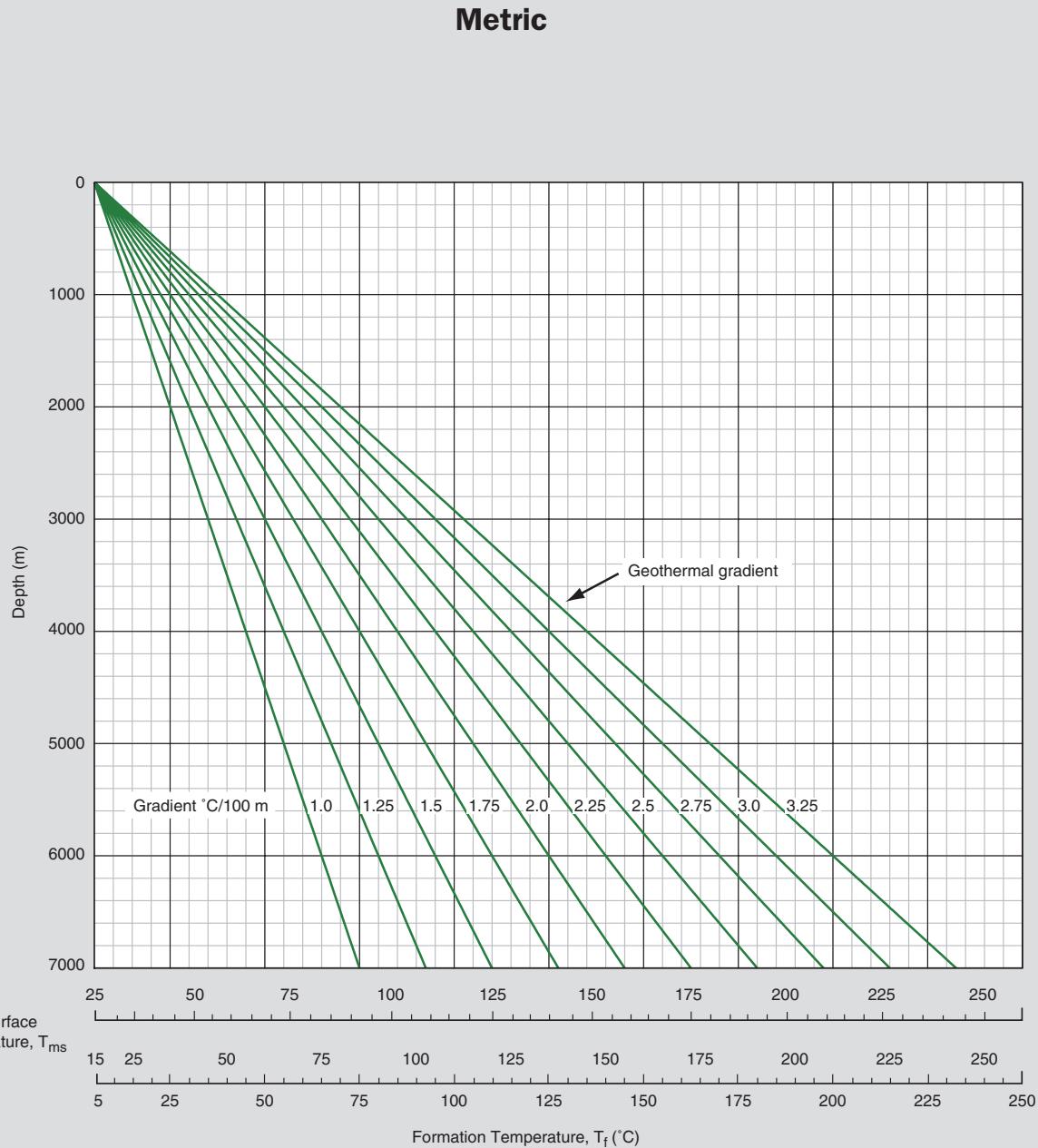
Enter y-axis at 13,500 ft, draw horizontal line.

Enter the x-axis at 220°F ($T_{ms} = 60$) and draw a vertical line and intersect the horizontal line at 1.2 (deg/100 ft).

Follow the 1.2 (Deg) per 100 ft geothermal gradient line to 10,000 ft and draw a vertical line down to intersect at 180°F.



Estimation of Formation Temperature

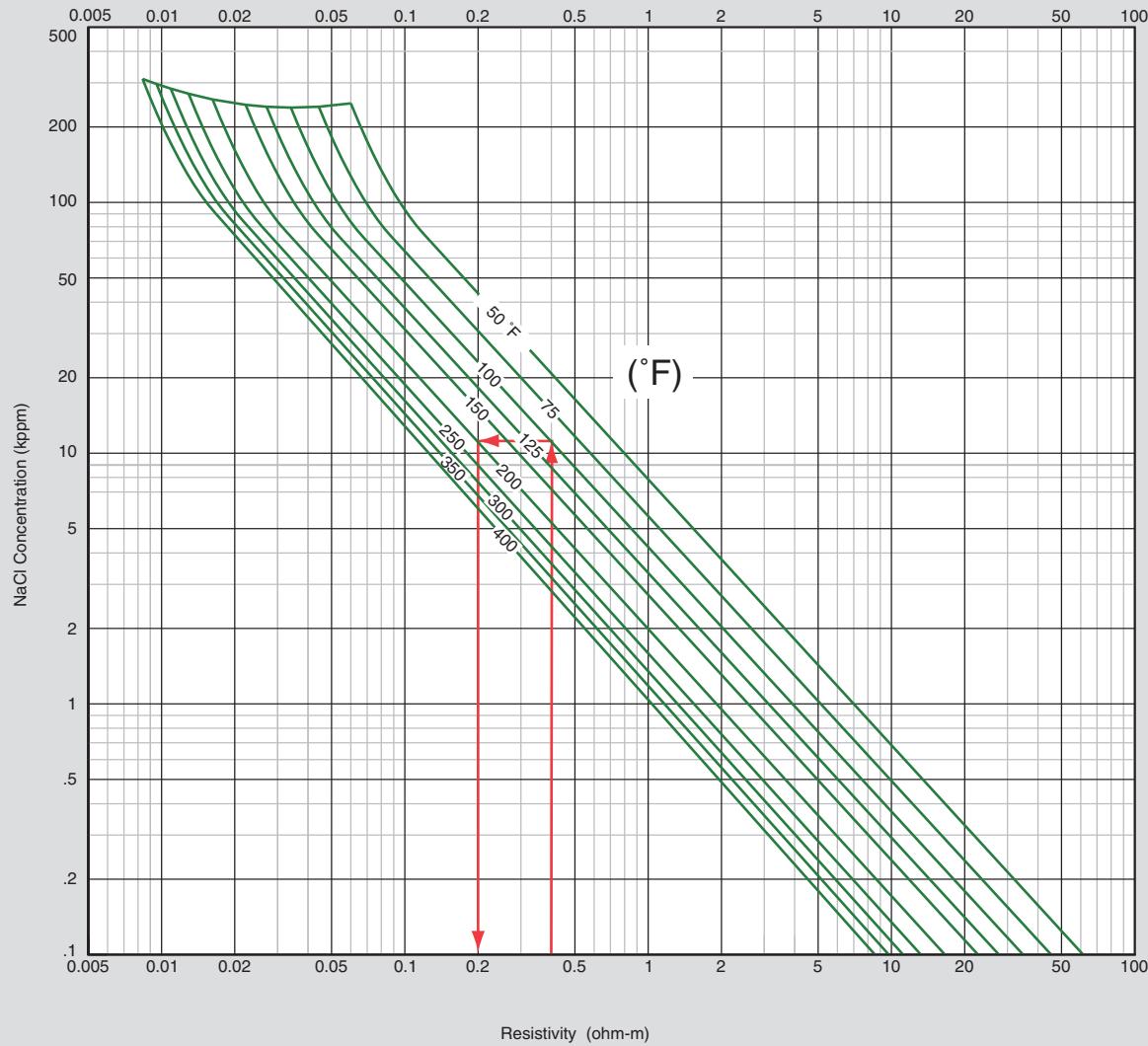


2-2

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Resistivity vs. Temperature - NaCl Solutions

English



Example: Resistivity of a water sample is 0.4 ohm-m at 100°F. What is the resistivity at 200°F?

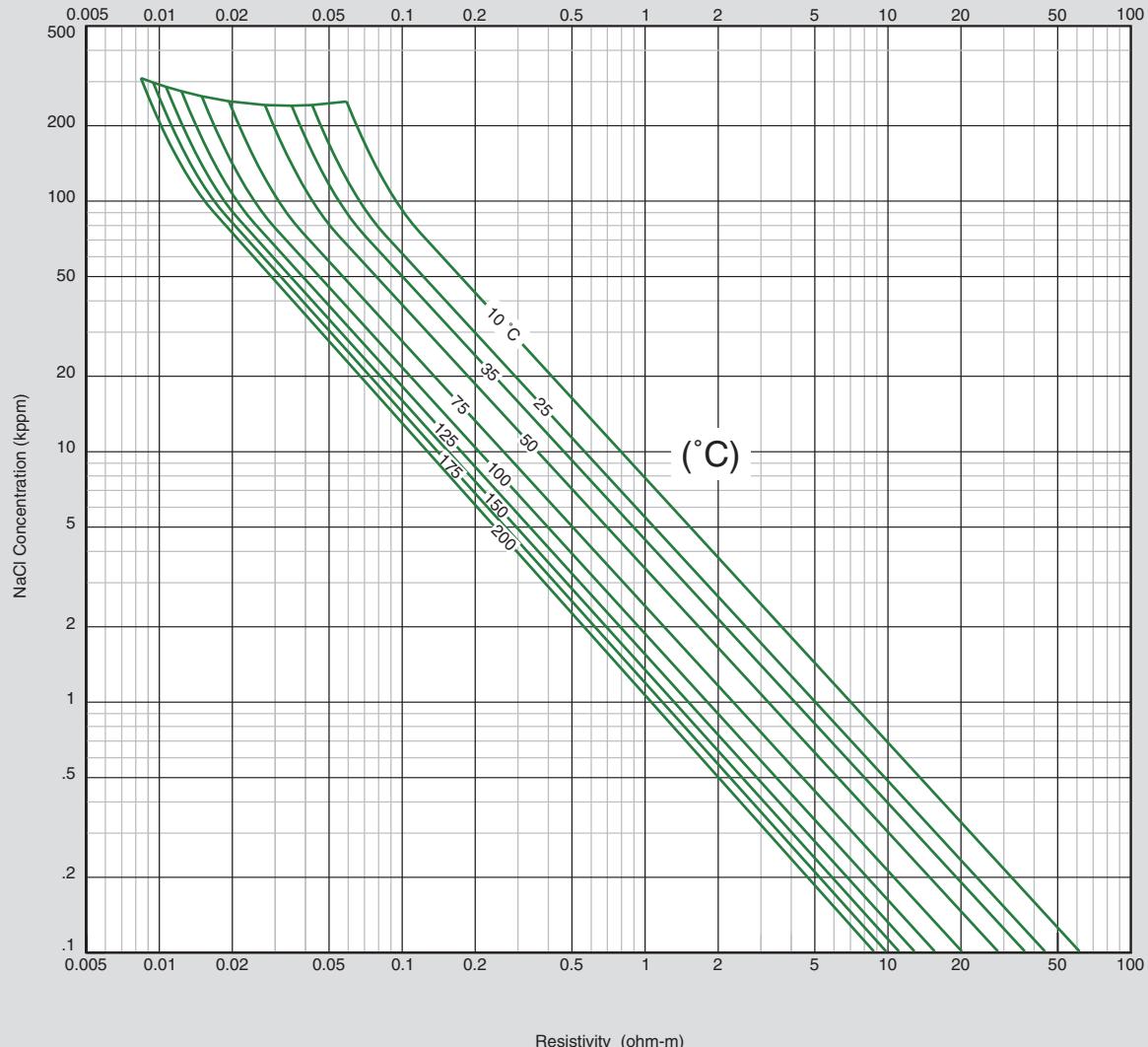
Enter the chart at 0.4 ohm-m resistivity; follow the line upwards to intersect 100°F.

The intersection yields 12,000 ppm salinity. Move horizontally to 200°F and move down from the intersection to read 0.2 ohm-m at 200°F.

$$R_{w2} = R_{w1} \left(\frac{T_1 + 6.77}{T_2 + 6.77} \right); ^\circ F$$



Resistivity vs. Temperature - NaCl Solutions

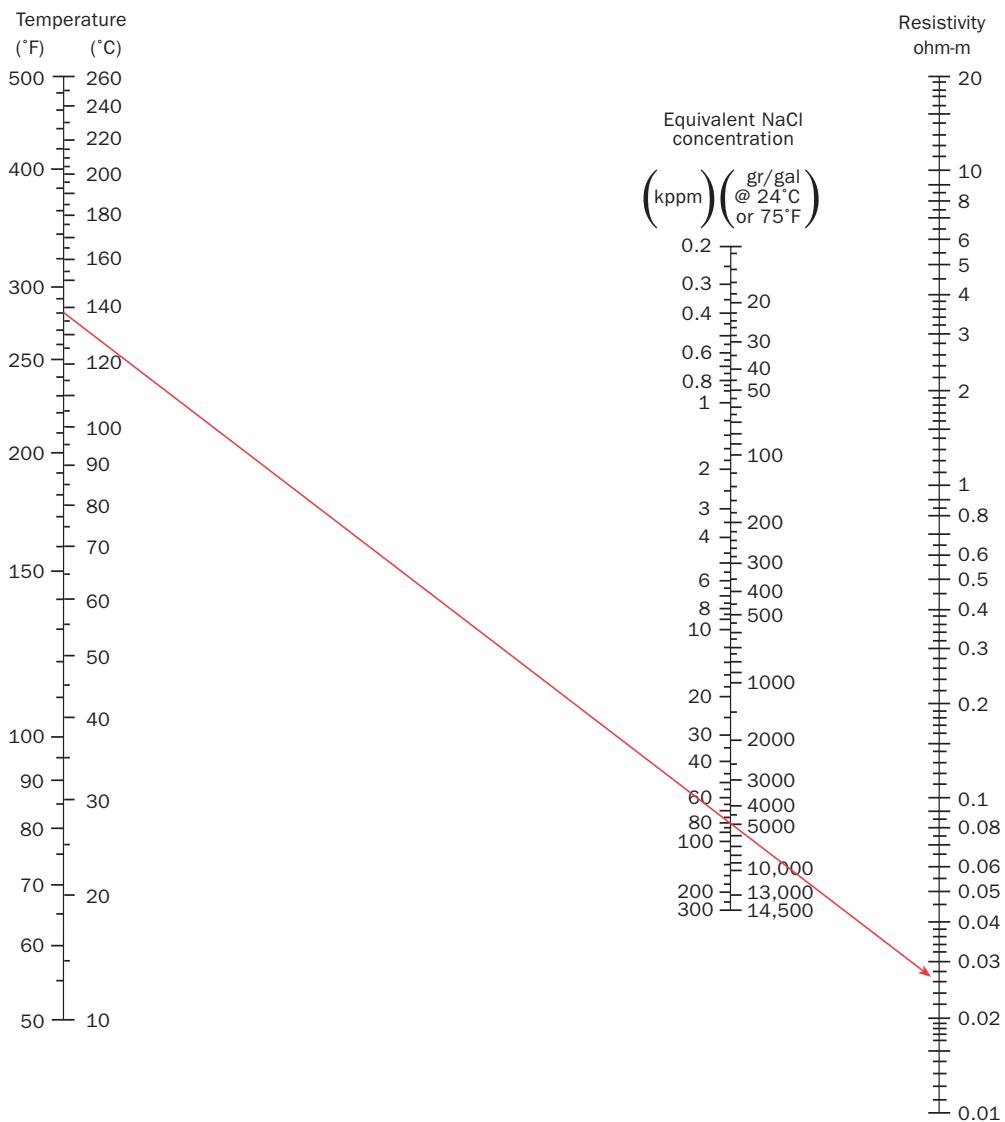


$$R_{w2} = R_{w1} \left(\frac{T_1 + 21.5}{T_2 + 21.5} \right); ^\circ C$$

2-4

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Resistivity of Equivalent NaCl Solutions



English:

$$R_{w2} = R_{w1} \left(\frac{T_1 + 6.77}{T_2 + 6.77} \right); \text{ } ^\circ\text{F}$$

Metric:

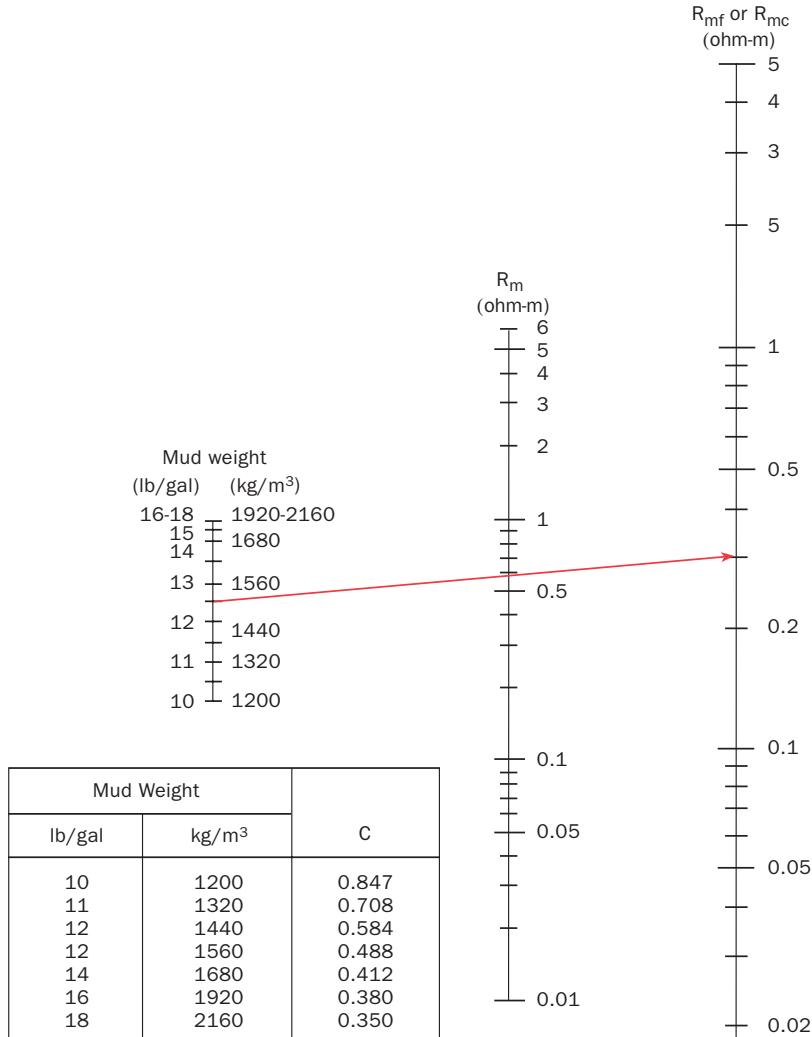
$$R_{w2} = R_{w1} \left(\frac{T_1 + 21.5}{T_2 + 21.5} \right); \text{ } ^\circ\text{C}$$

Example:

Given: Temperature = 280°F and NaCl concentration = 80,000 ppm. Determine: Resistivity
 $R = 0.026 \text{ ohm-m}$



Estimation of R_{mf} and R_{mc}



$$R_{mf} = C(R_m)^{1.07}$$

$$R_{mc} = 0.69 R_{mf} \left(\frac{R_m}{R_{mf}} \right)^{2.65}$$

Example

Given: $R_m = 0.6$ ohm-m at 180°F mud

Mud weight = 12.5 lb/gal

Determine: R_{mf} and R_{mc}

$$R_{mf} = 0.31 \text{ ohm-m at } 180^\circ\text{F}$$

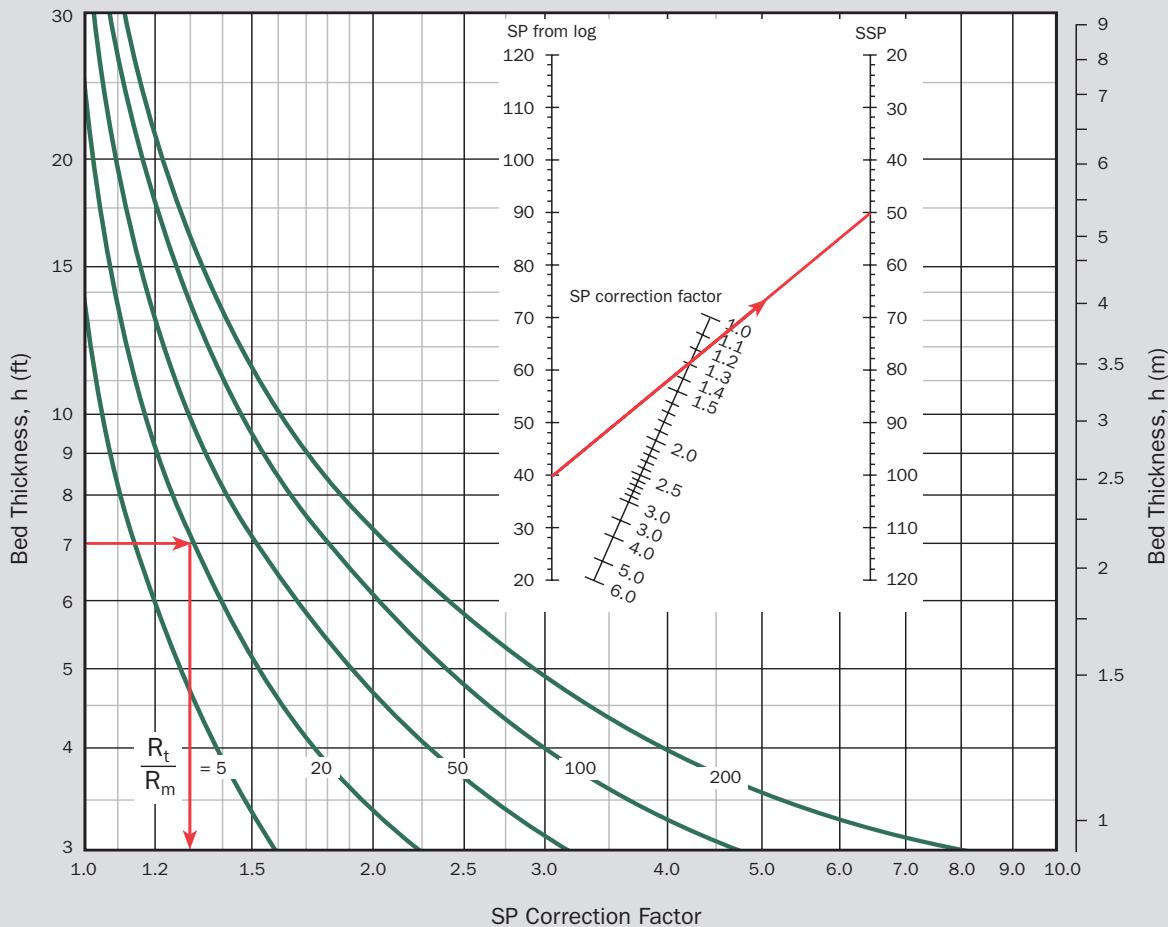
$$R_{mc} = 1.23 \text{ ohm-m at } 180^\circ\text{F (from equation)}$$

Note: This chart may be used when the measured values of R_{mf} and R_{mc} are not available, but does not apply to lignosulfonate muds.

Section 3

Spontaneous Potential

SP Bed Thickness Correction



Given: $SP(\log) = -40 \text{ mV}$, $h = 7 \text{ ft}$, $R_t = 16 \text{ ohm-m}$, $R_m = 0.8 \text{ ohm-m}$

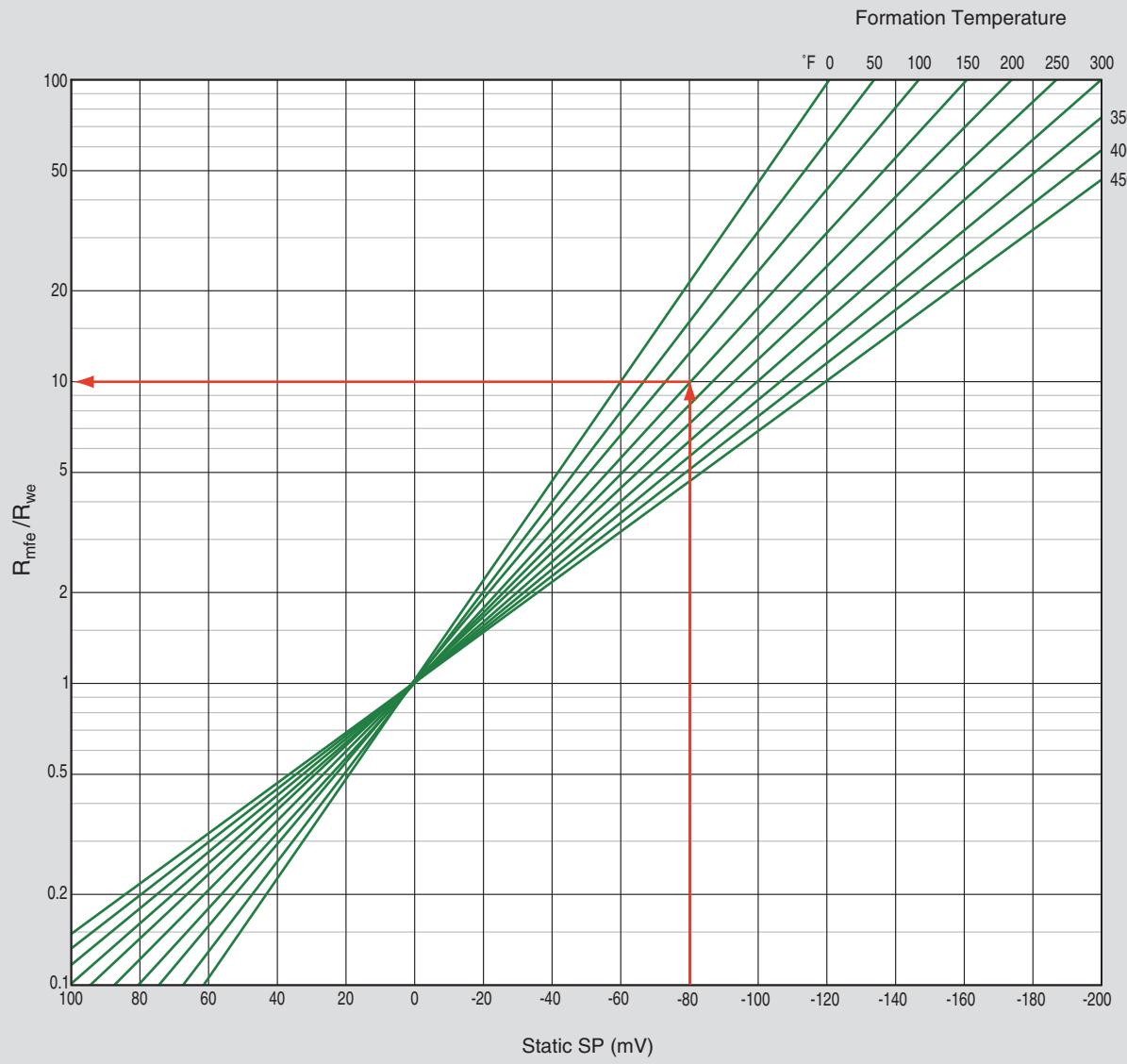
Solution: Bed thickness = 7 ft, $R_t/R_m = 20$, SP correction factor = 1.3

Nomograph: $SP(\log) = -40 \text{ mV}$, SP correction factor = 1.3; SSP = -52 mV



R_{we} Determination From Static SP

English



Given: SSP = -80 mV, $T_f = 150^\circ\text{F}$, $R_{\text{mf}} = 0.6 \text{ ohm-m}$

Determine: R_{we}

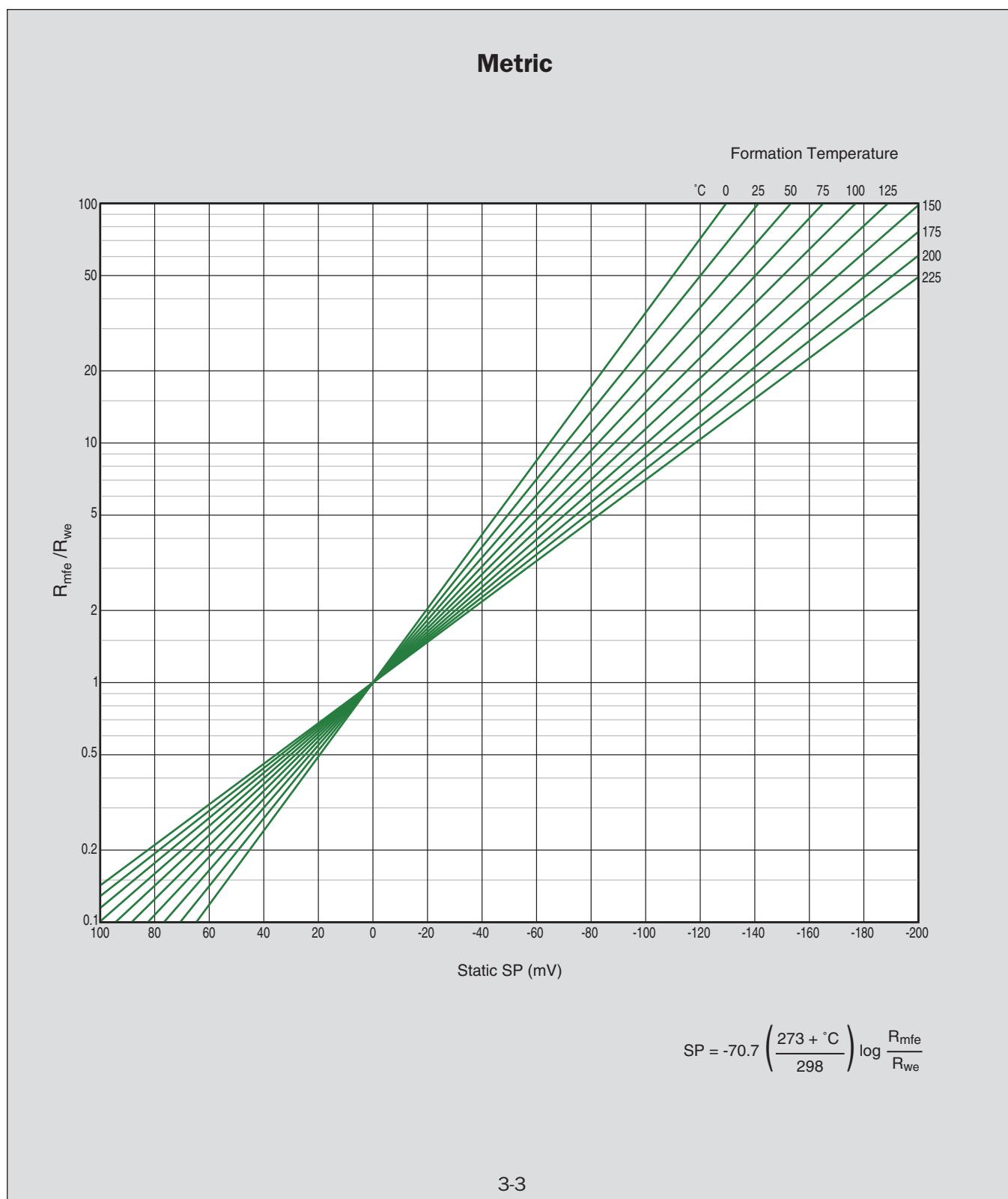
(Note - If $R_{\text{mf}} > 0.1$ @ 77°F (25°C) use $R_{\text{mfe}} = 0.85 R_{\text{mf}}$)

Solution: $R_{\text{mfe}}/R_{\text{we}} = 10.0$, $R_{\text{we}} = 0.06 \text{ ohm-m}$

$$\text{SP} = -70.7 \left(\frac{460 + {}^\circ\text{F}}{537} \right) \log \frac{R_{\text{mfe}}}{R_{\text{we}}}$$

3-2

R_{we} Determination From Static SP

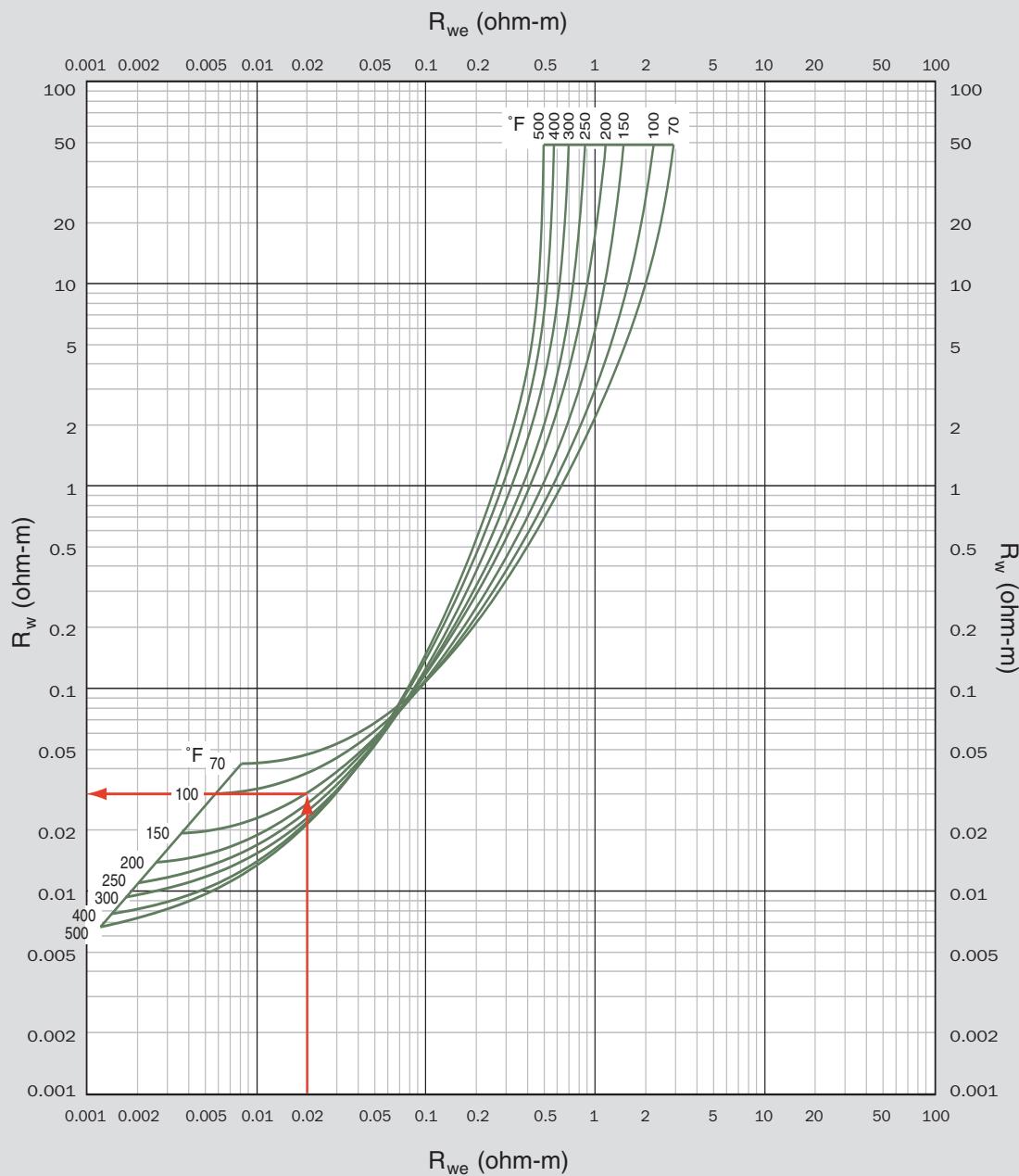


3-3

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R_w vs. R_{we}

English



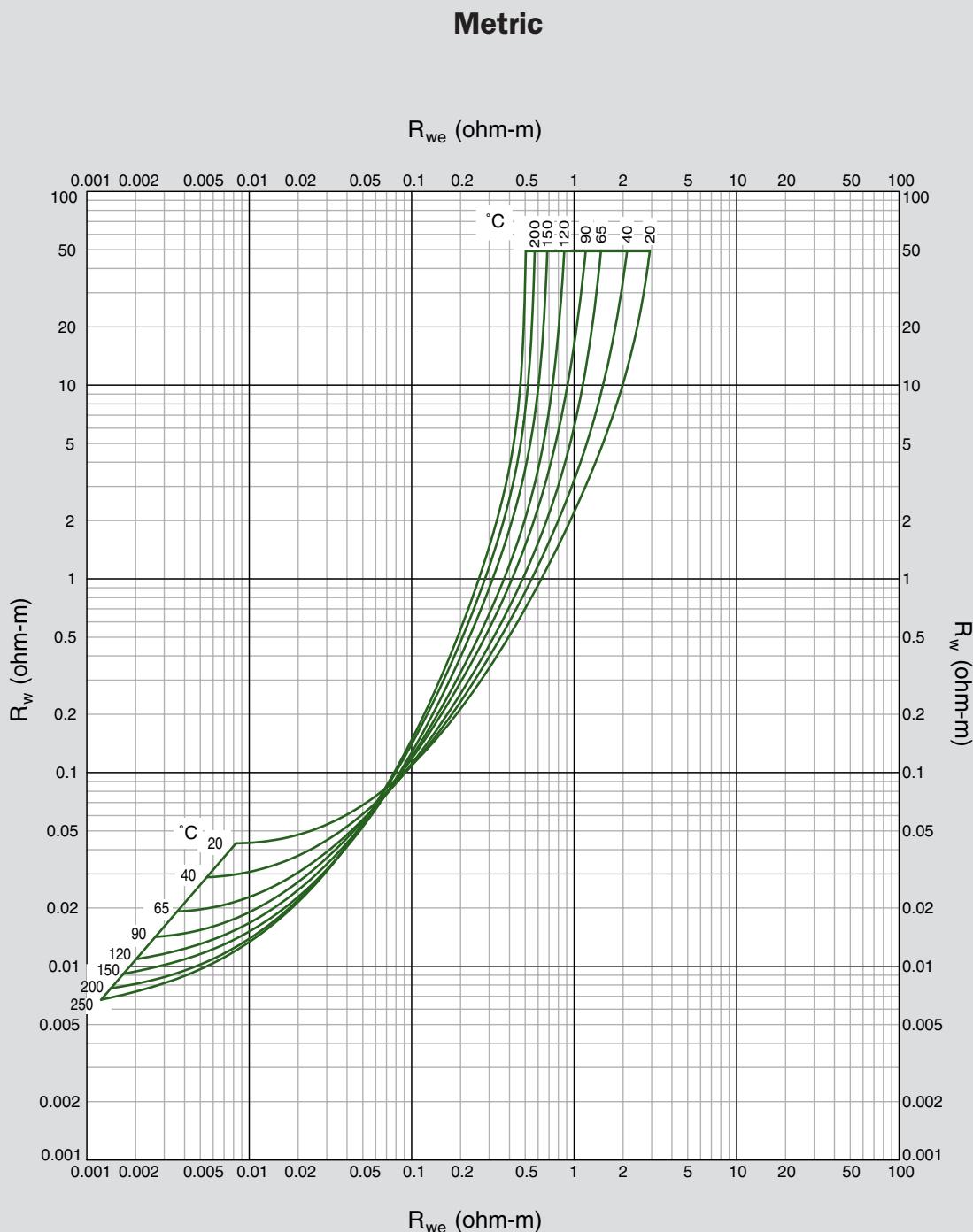
Given: $R_{we} = 0.02$ ohm-m, $T_f = 150^\circ F$

Determine R_w ; $R_w = 0.03$ ohm-m @ $150^\circ F$

3-4

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R_w vs. R_{we}

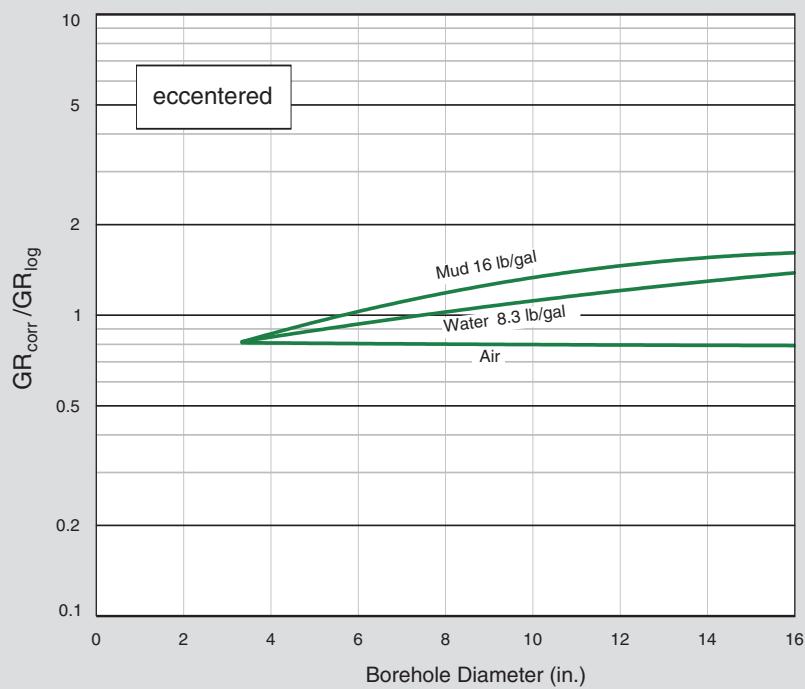
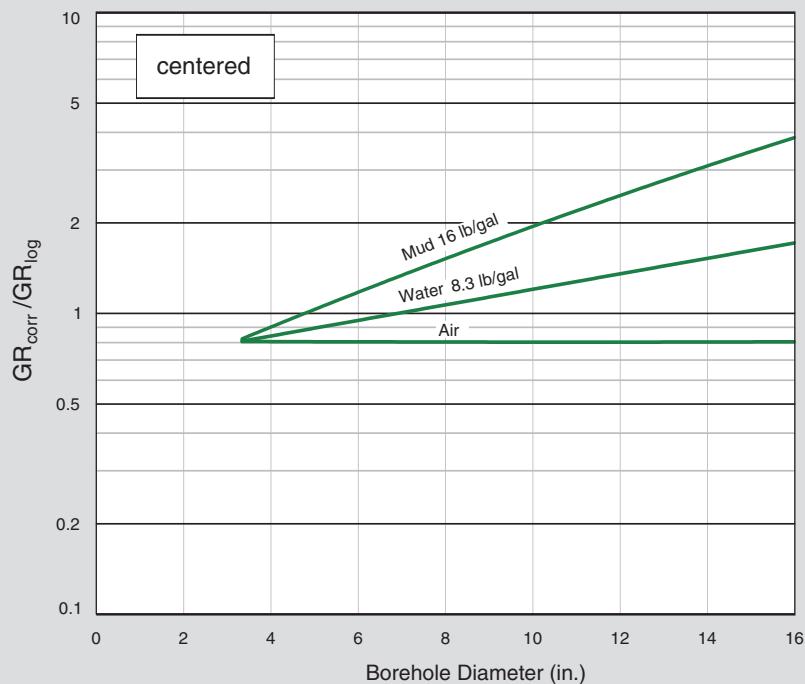


Section 4

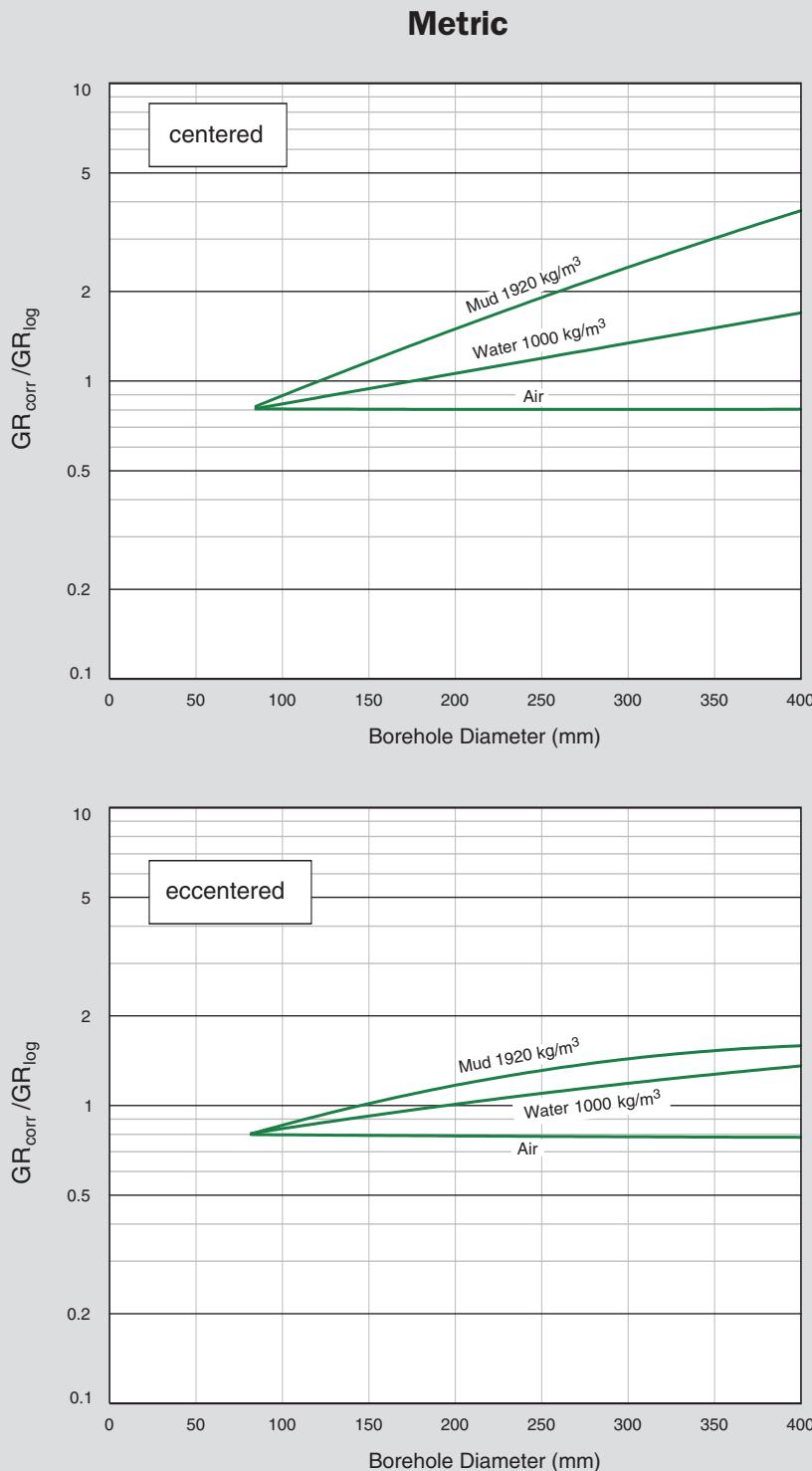
Natural Radioactivity

Gamma Ray Borehole Correction Chart for Borehole Size and Mud Weight

English

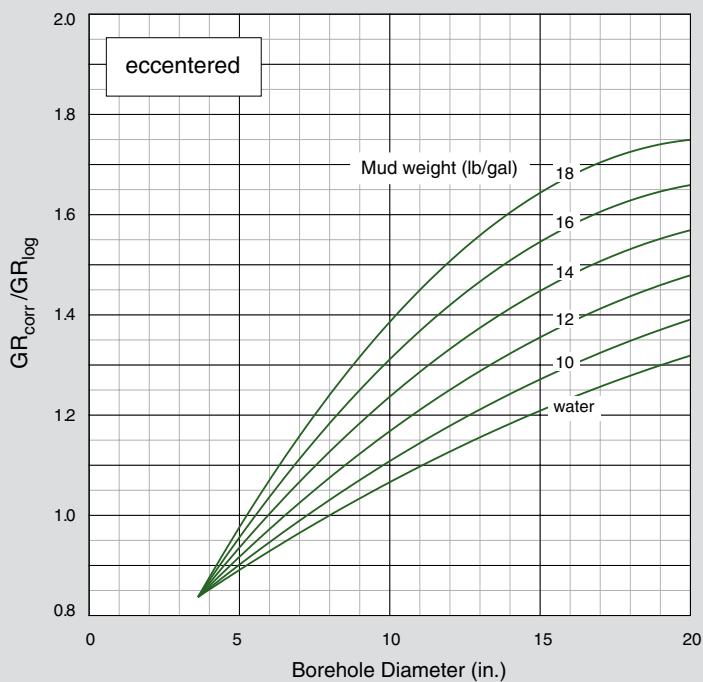
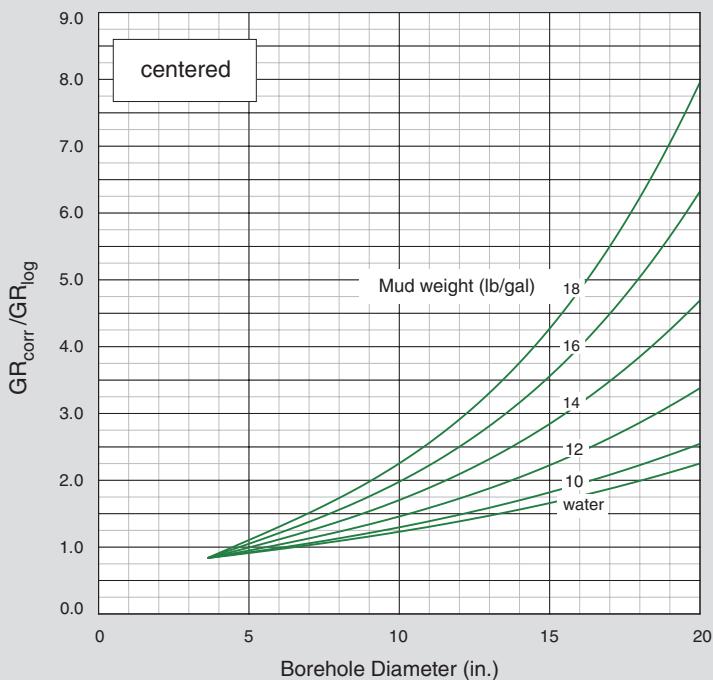


Gamma Ray Borehole Correction Chart for Borehole Size and Mud Weight

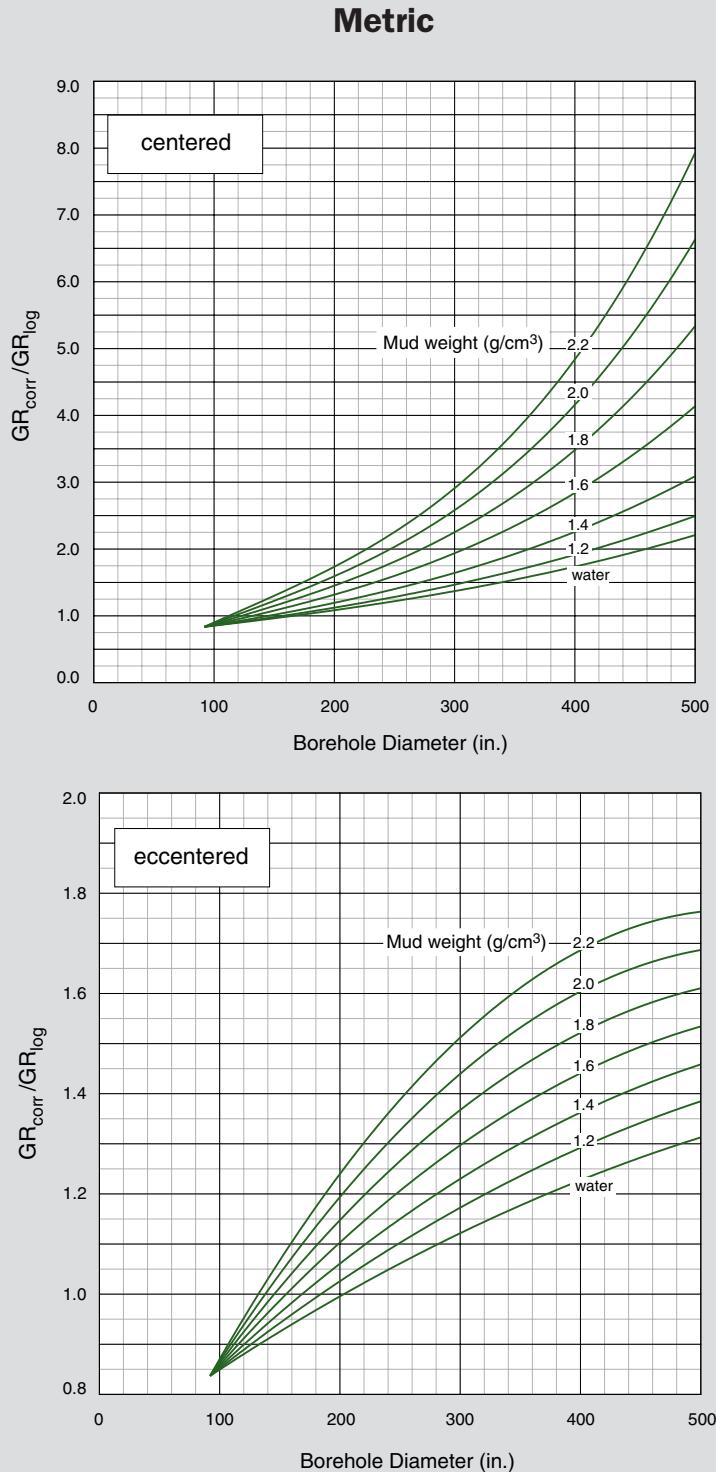


Spectral Gamma Ray Response Borehole Size and Mud Weight Correction

English

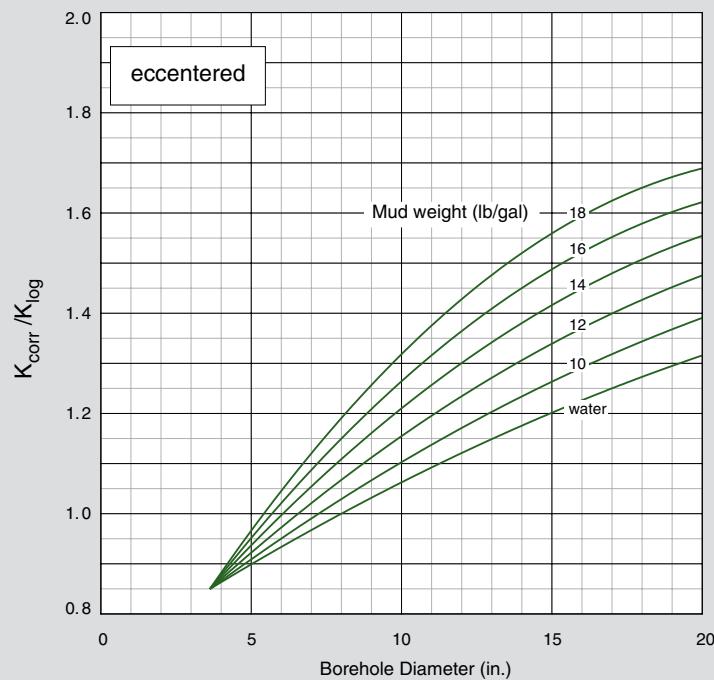
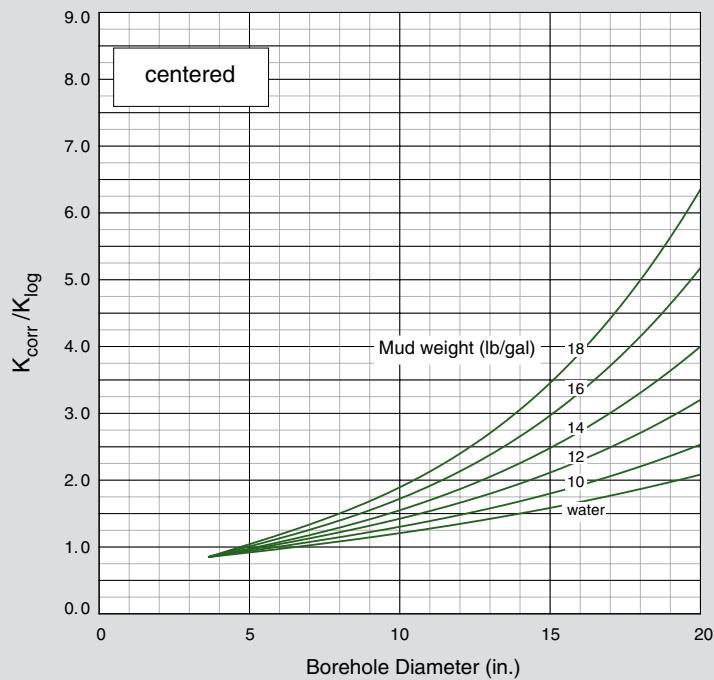


Spectral Gamma Ray Response Borehole Size and Mud Weight Correction

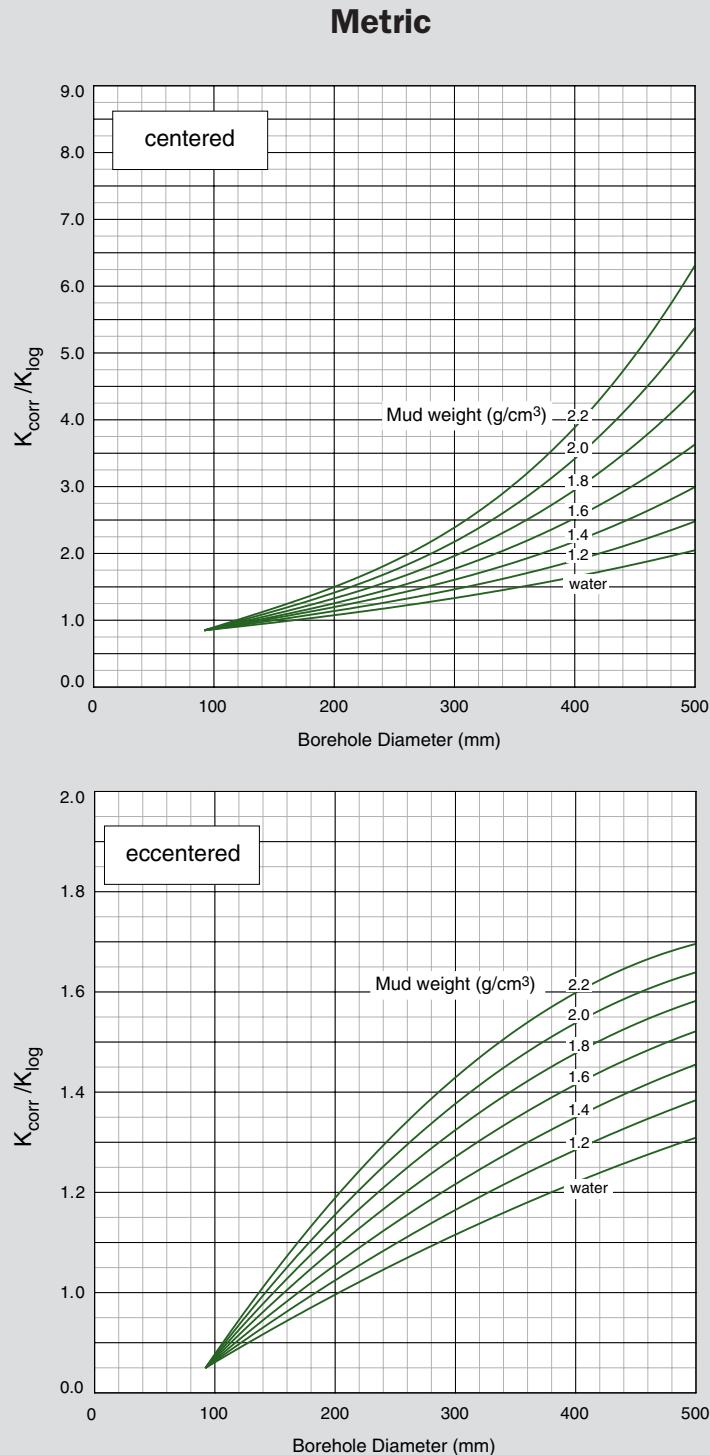


Spectral Gamma Ray Potassium Response Borehole Size and Mud Weight Correction

English

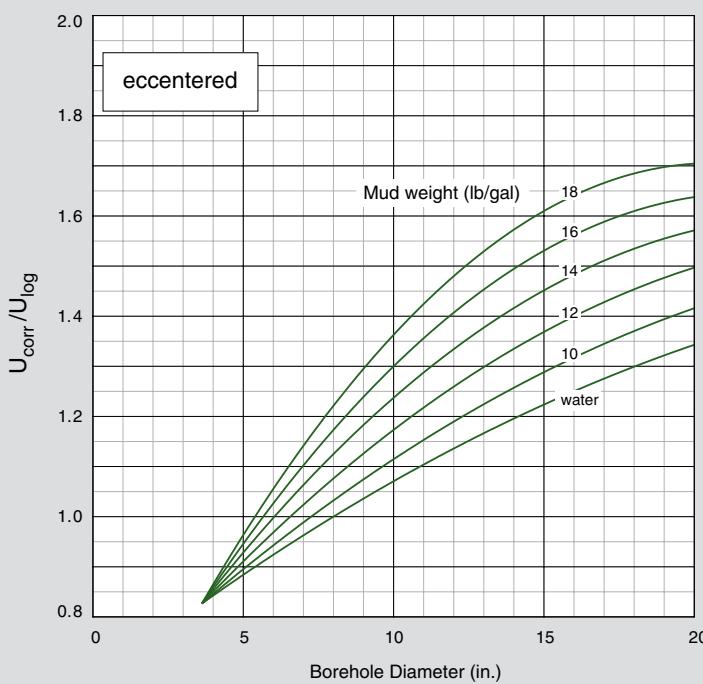
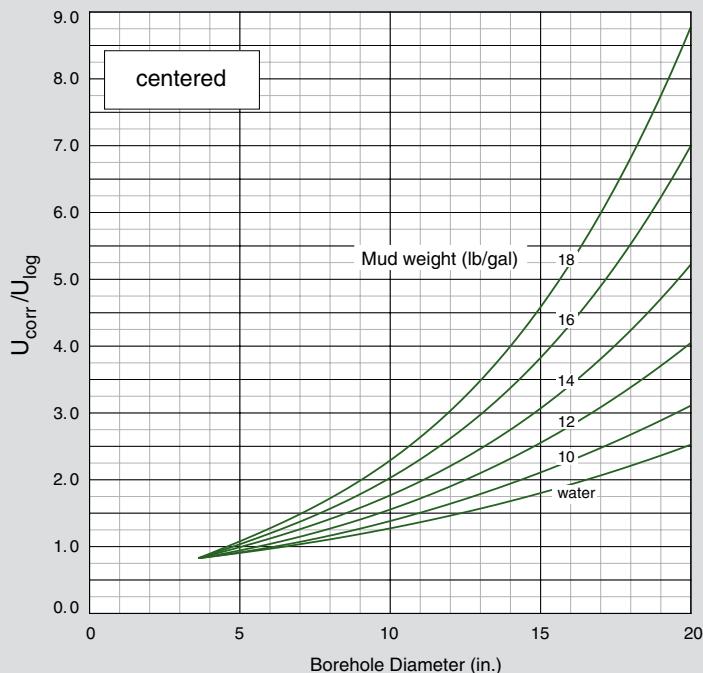


Spectral Gamma Ray Potassium Response Borehole Size and Mud Weight Correction

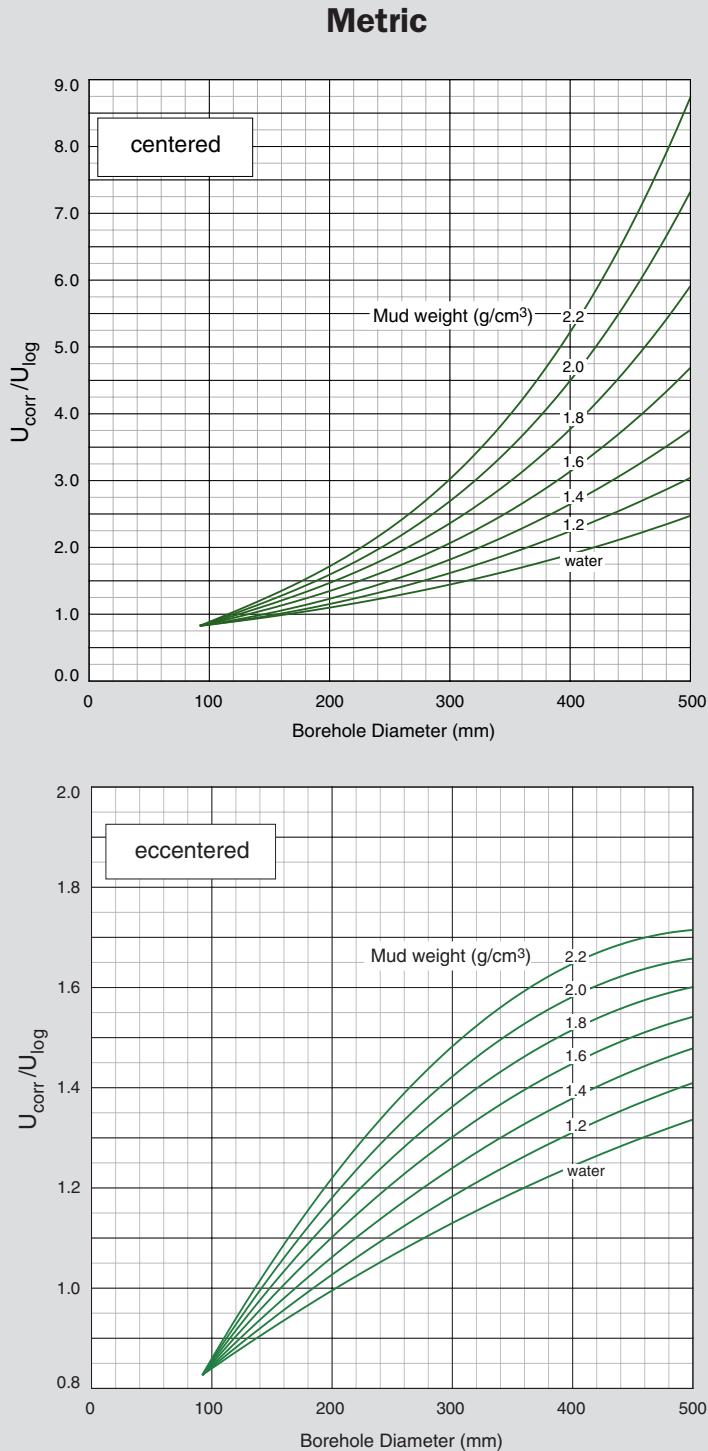


Spectral Gamma Ray Uranium Response Borehole Size and Mud Weight Correction

English

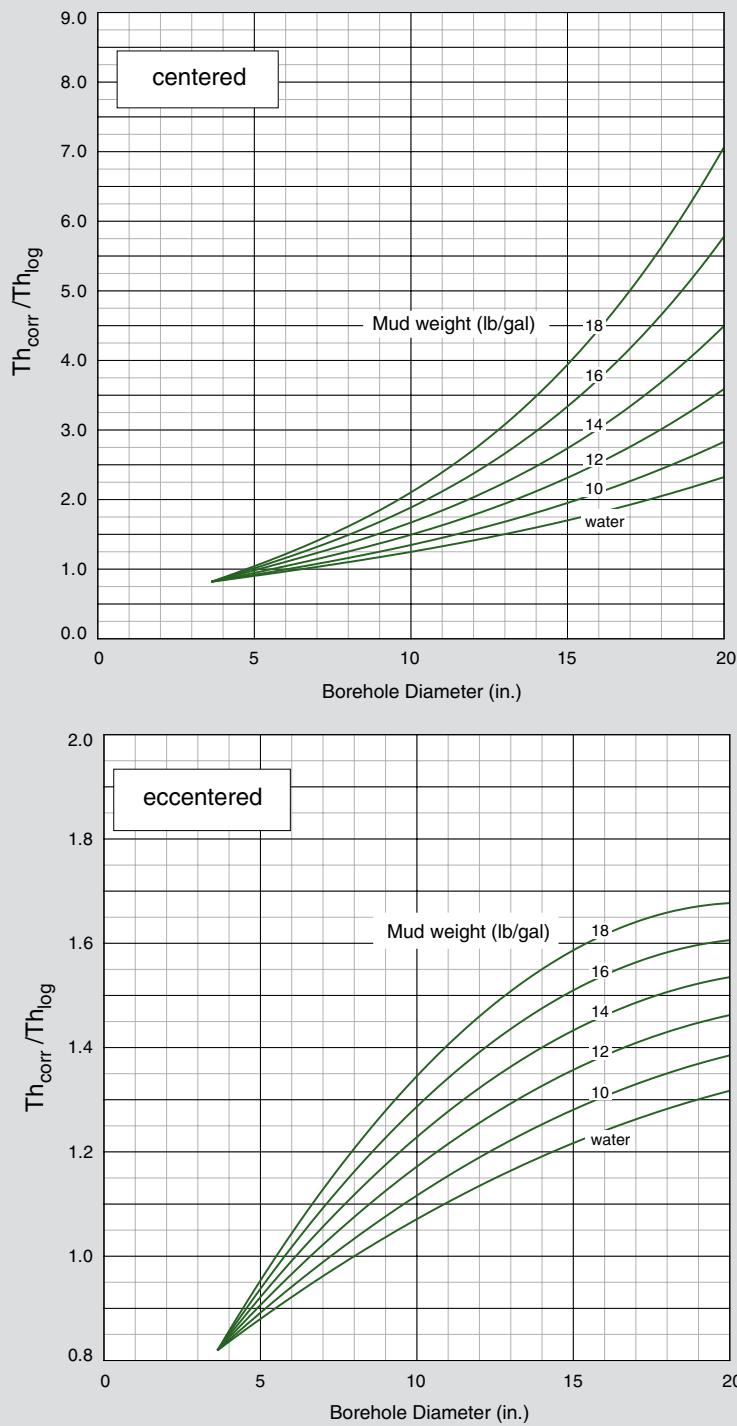


Spectral Gamma Ray Uranium Response Borehole Size and Mud Weight Correction

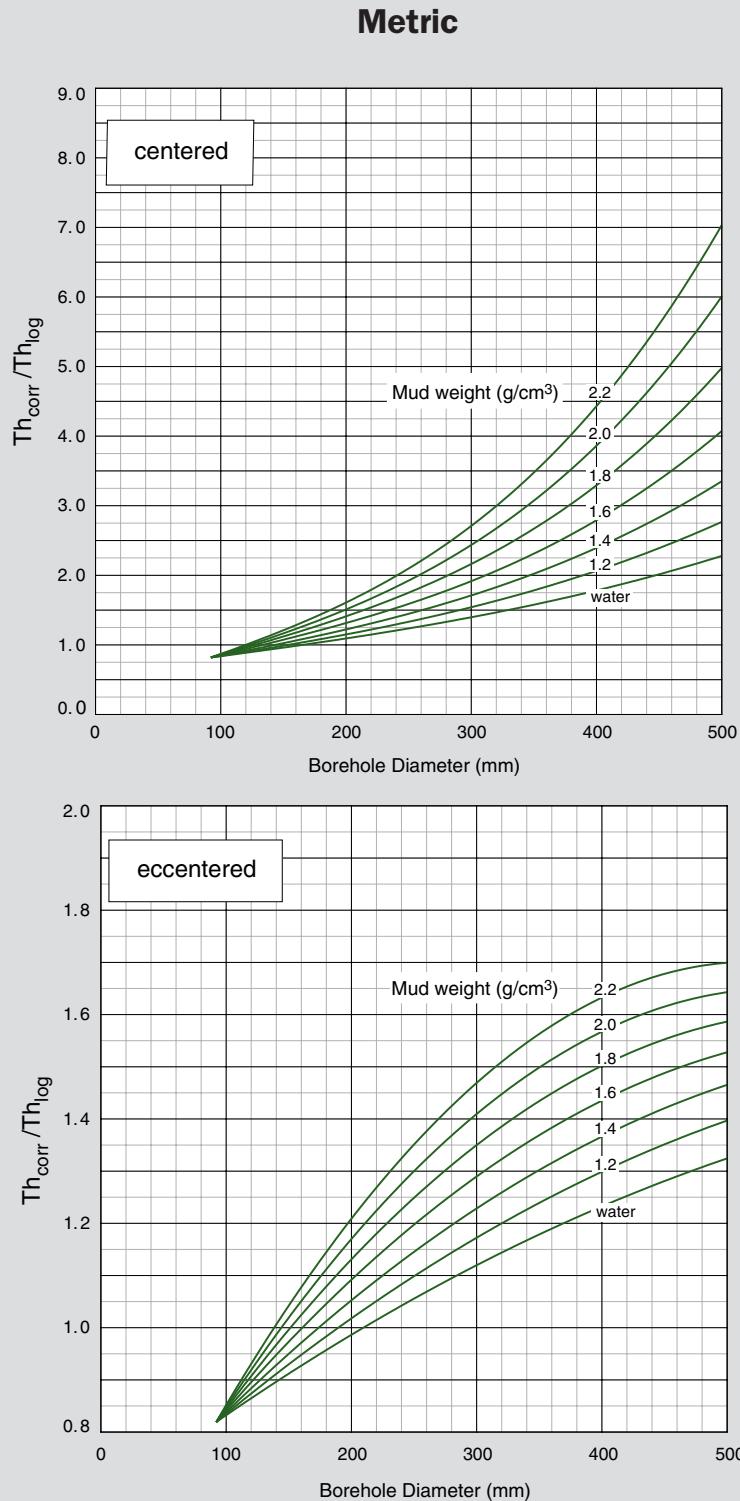


Spectral Gamma Ray Thorium Response Borehole Size and Mud Weight Correction

English



Spectral Gamma Ray Thorium Response Borehole Size and Mud Weight Correction

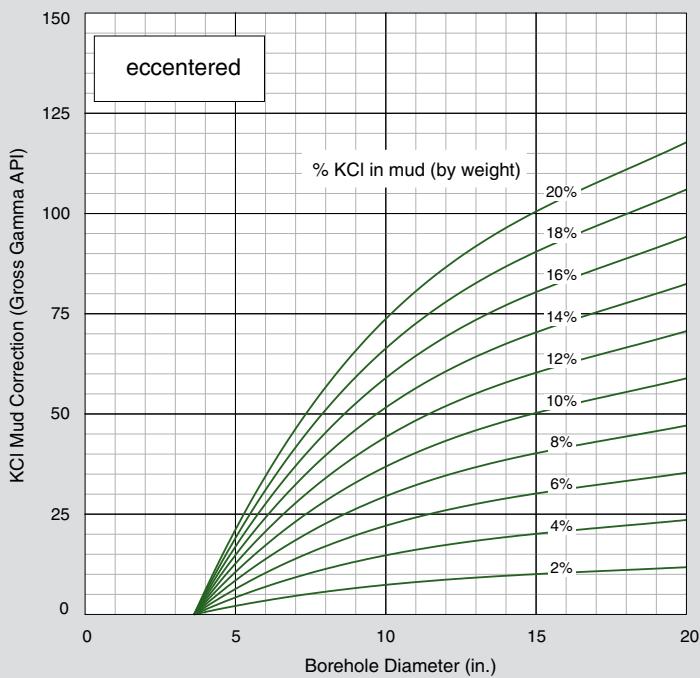
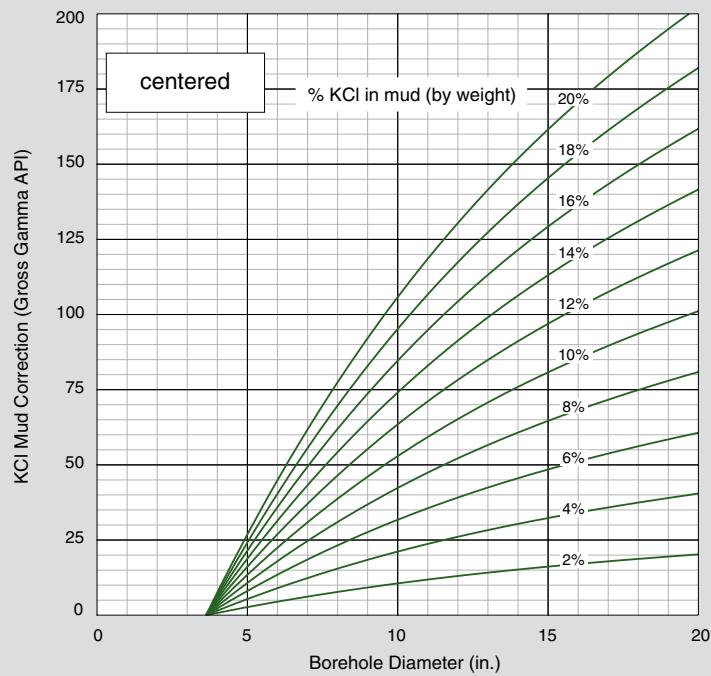


4-10

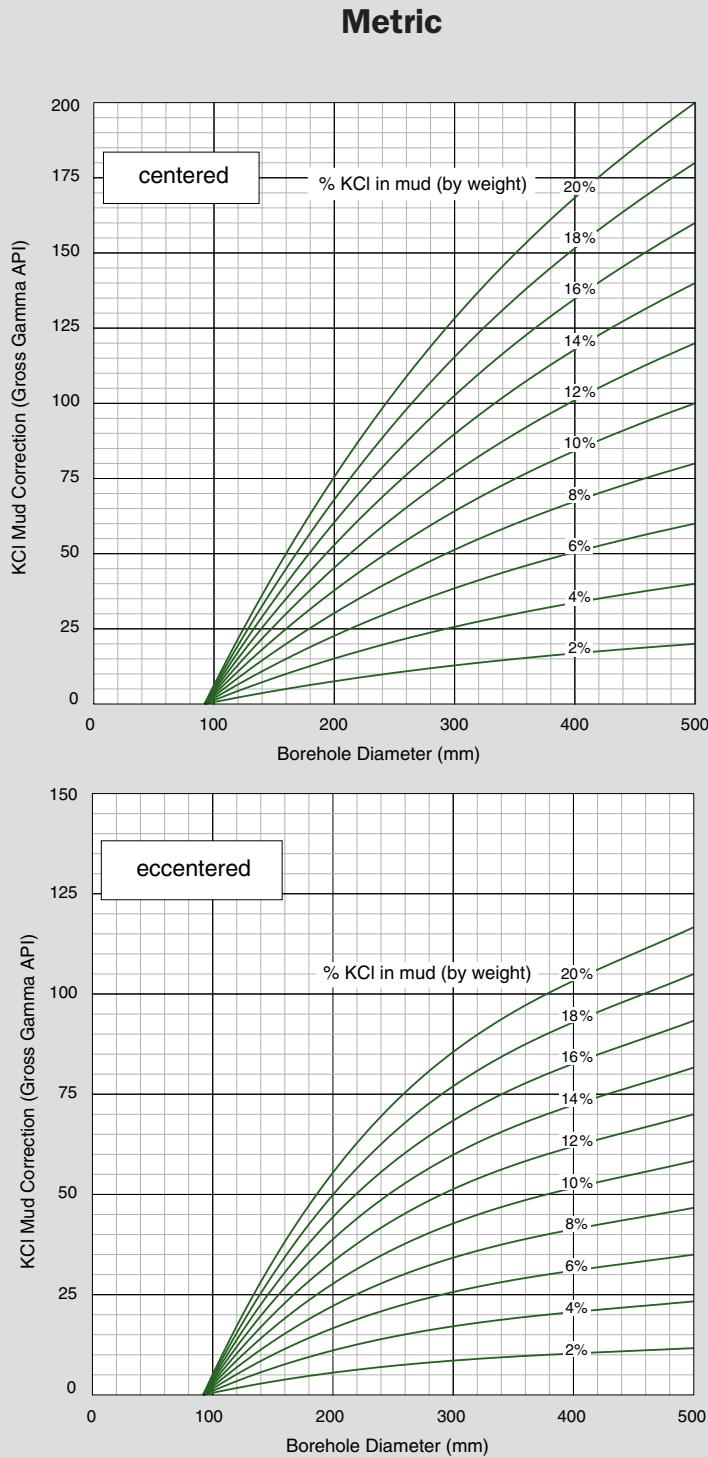
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Spectral Gamma Ray Correction for KCl Mud

English



Spectral Gamma Ray Correction for KCl Mud

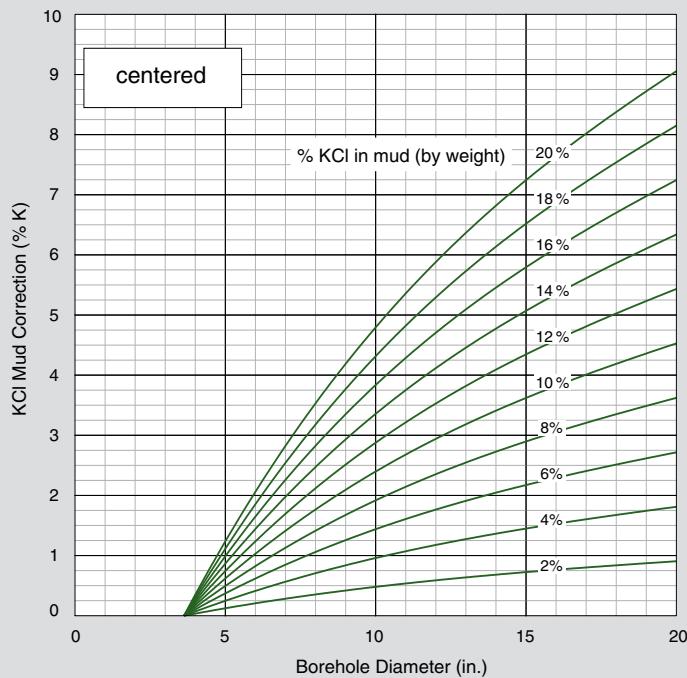


4-12

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Spectral Gamma Ray Potassium Response Correction for KCl Mud

English



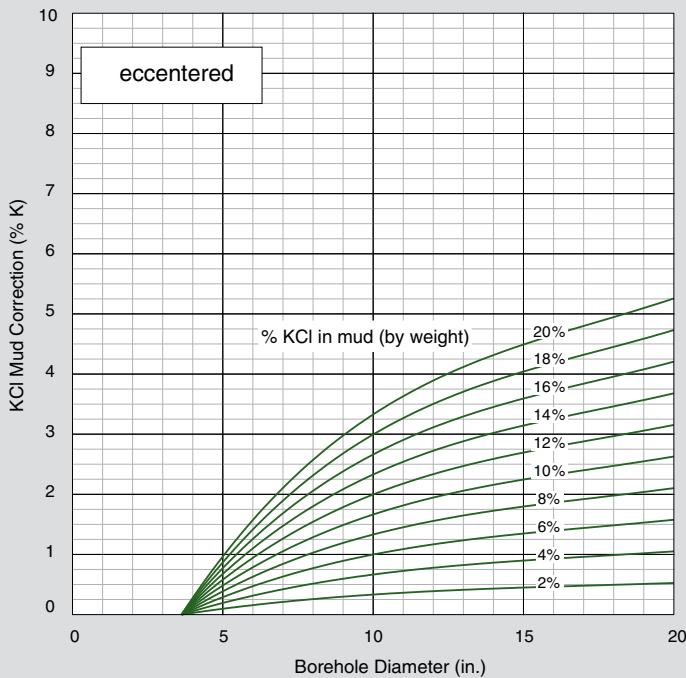
For KCl mud, begin by determining the borehole corrections (C_{GR}) for hole size and mud weight from chart 4-5. Apply the correction for the influence of KCl in the borehole as:

$$K_{corr} = C_{GR} (K_{log} - KCl)$$

Where

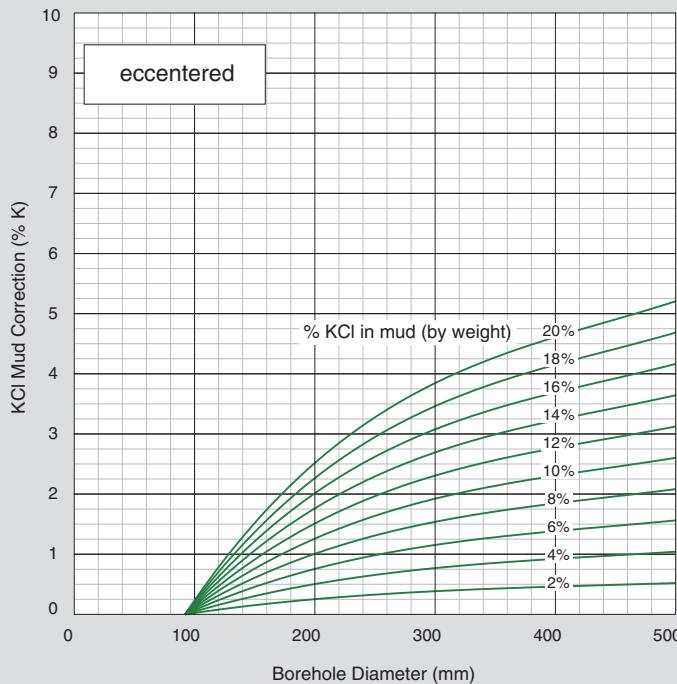
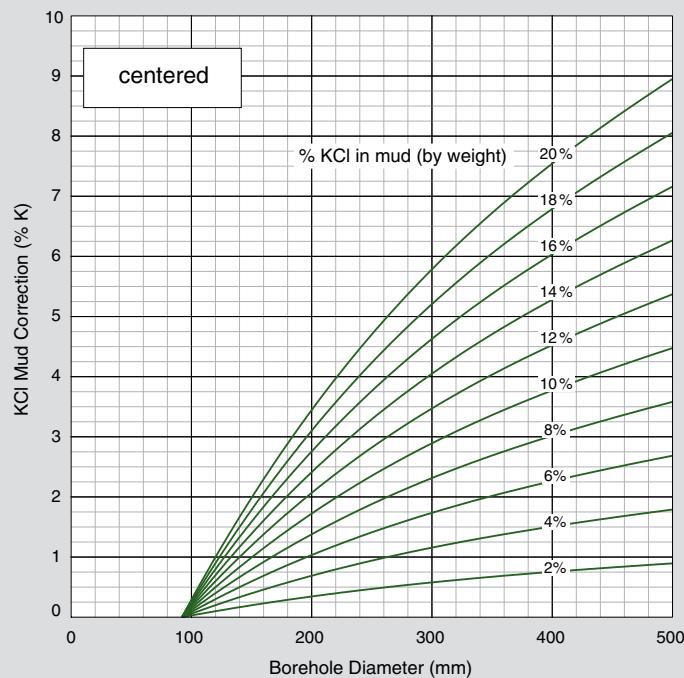
C_{GR} = borehole size and mud weight correction (K_{corr} / K_{log} from chart 4-5)
KCl = KCl correction in percent

Note — No KCl correction is needed for the Spectral Gamma Ray uranium or thorium response.



Spectral Gamma Ray Potassium Response Correction for KCl Mud

Metric



For KCl mud, begin by determining the borehole corrections for hole size and mud weight from chart 4-6. Apply the correction for the influence of KCl in the borehole as:

$$K_{corr} = C_{GR} (K_{log} - KCl)$$

Where

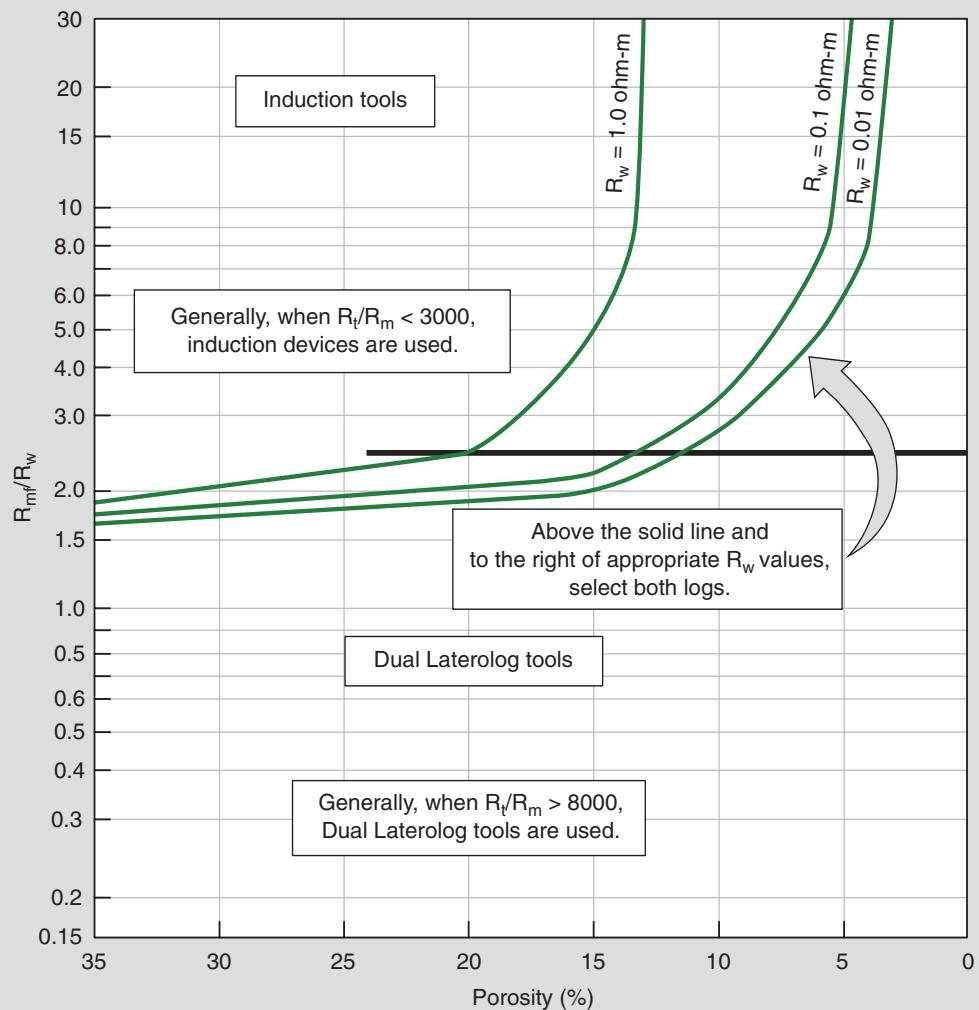
C_{GR} = borehole size and mud weight correction (K_{corr} / K_{log} from chart 4-6)
 KCl = KCl correction in percent

Note — No KCl correction is needed for the Spectral Gamma Ray uranium or thorium response.

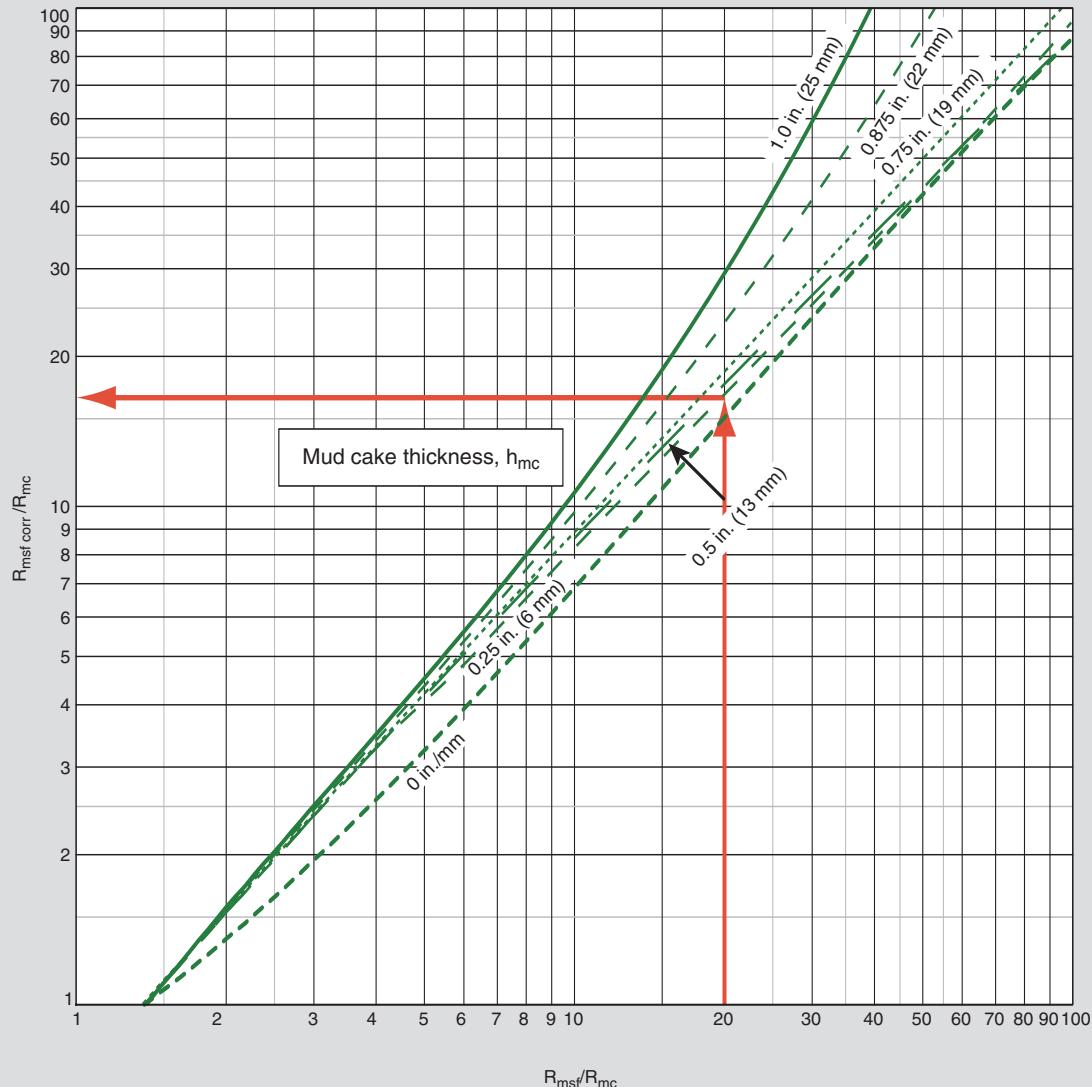
Section 5

Resistivity

Guidelines for Choosing Induction Logs or Dual Laterologs



Mudcake Correction for Micro Spherically Focused Log (MSFL)



Given: $R_{msf} = 10$ ohm-m, $R_{mc} = 0.5$ ohm-m at formation temperature, $h_{mc} = 0.25$ in.

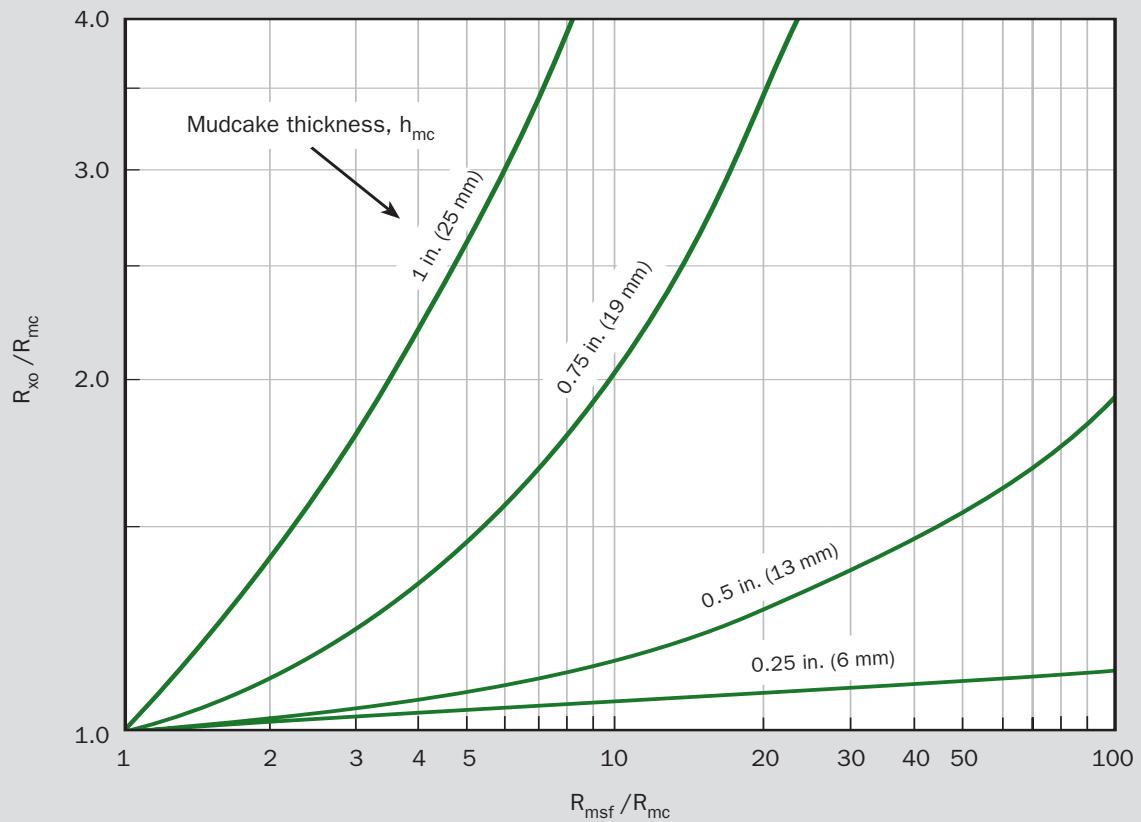
Enter the x-axis at $R_{msf} / R_{mc} = 20$ and draw a vertical line to intersect the $h_{mc} = 0.25$ in. line.

Proceed horizontally to read $R_{msf\ corr} / R_{mc}$ of 17.0

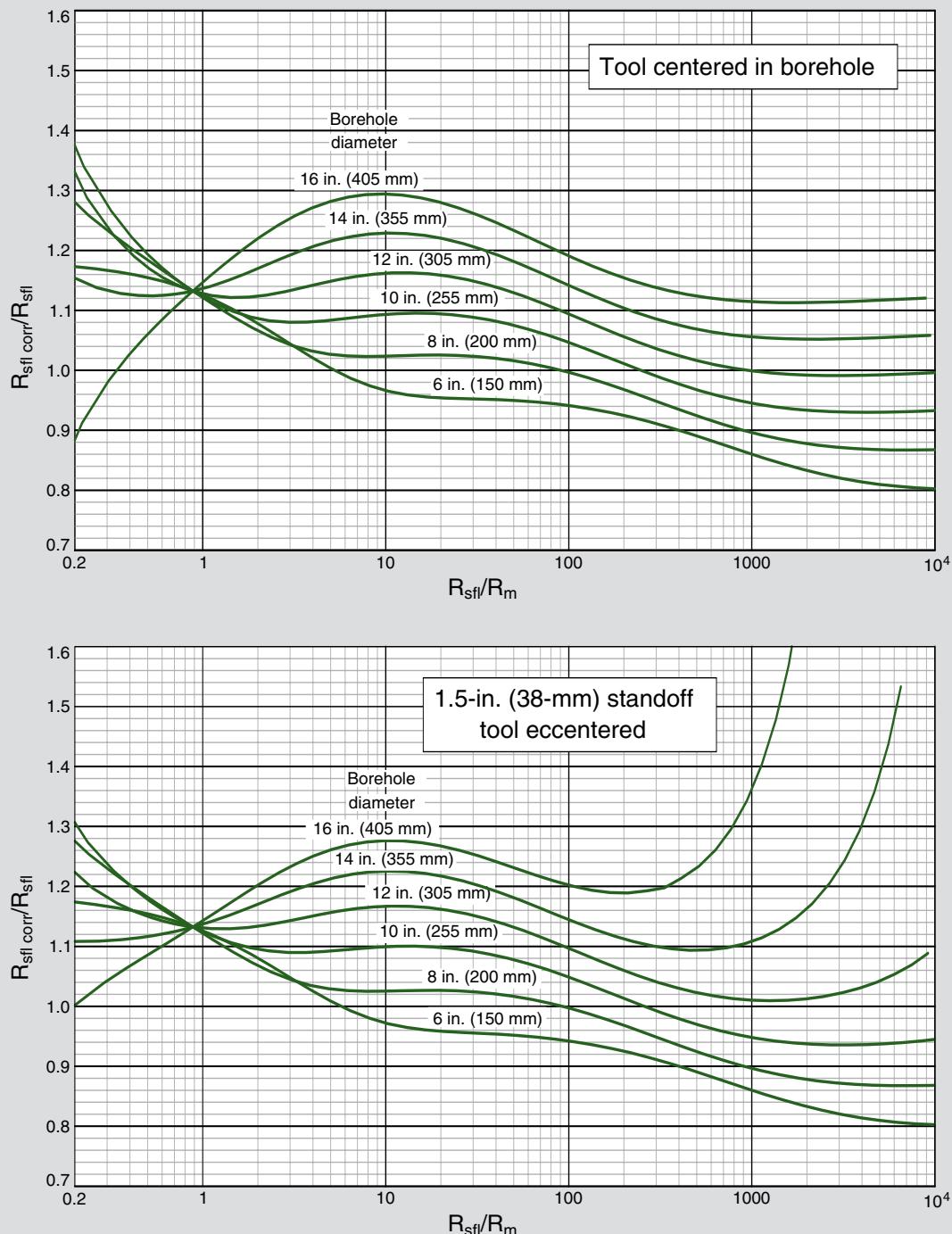
$$R_{msf\ corr} = 17.0 \times 0.5 = 8.5 \text{ ohm-m.}$$

Note - Reference condition is an 8-in. (200-mm) borehole.

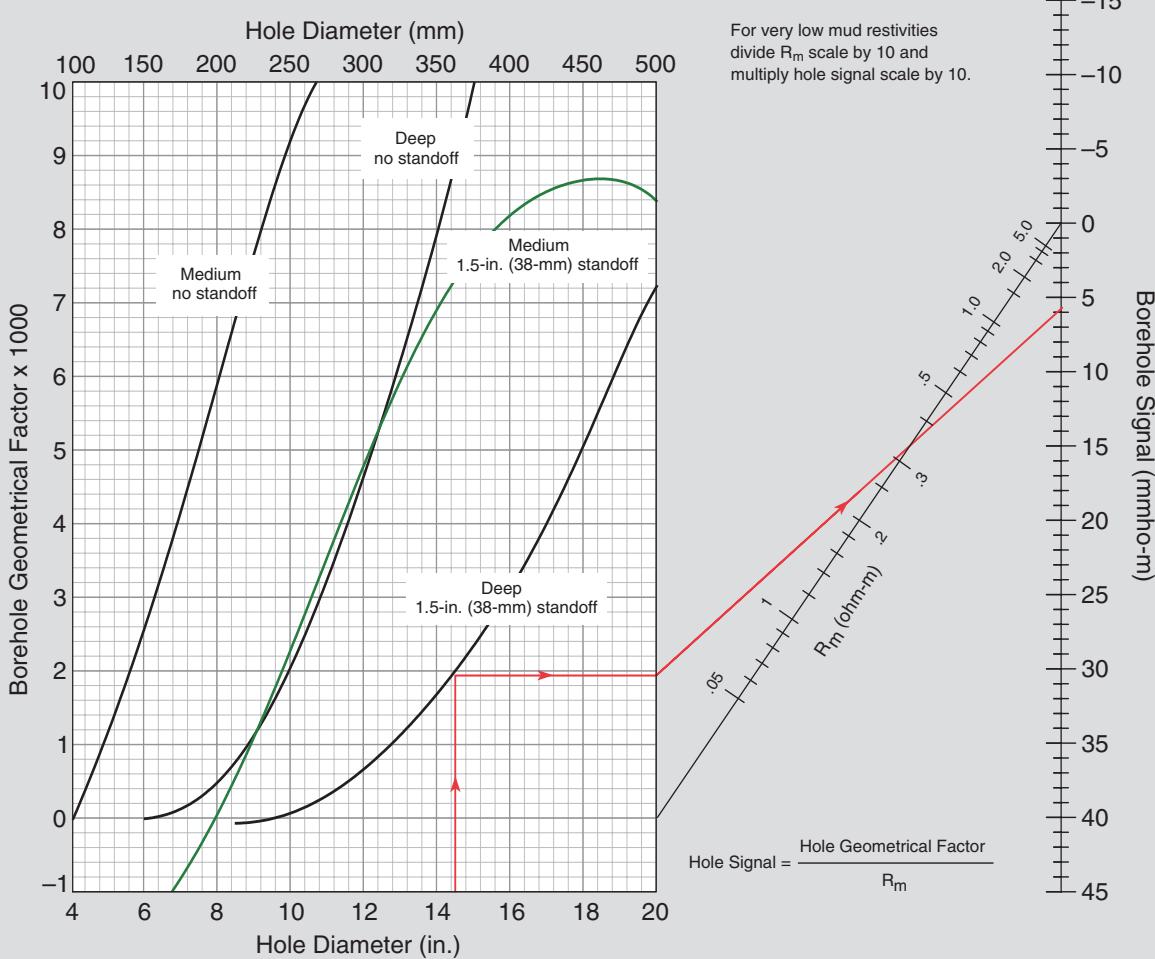
R_{x0} from Micro Spherically Focused Log



Borehole Correction for Spherically Focused Log (SFL) as part of the STI Tool Combination



Borehole Correction for Simultaneous Triple Induction (STI) Tool



Given: Hole diameter = 14.5 in., Standoff = 1.5 in., $R_{\text{deep}} = 20 \text{ ohm-m} @ T_f$, $R_m = 0.35 \text{ ohm-m} @ T_f$

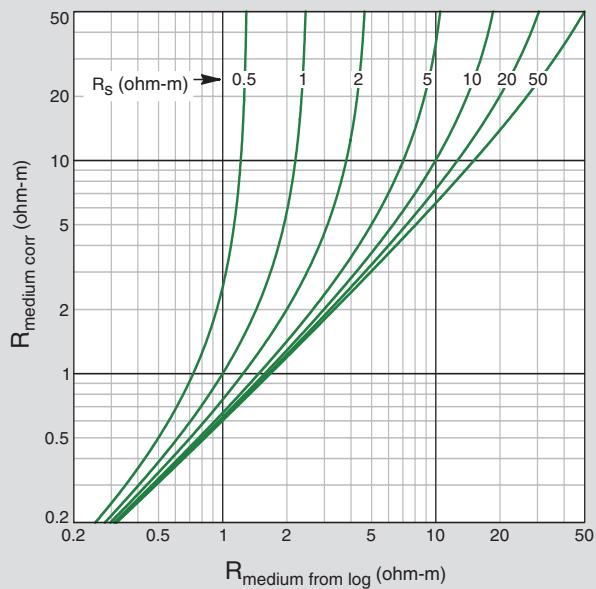
Enter at the hole diameter of 14.5 in. and draw a vertical line up to the 1.5 in. standoff curve. Proceed horizontally to the right side of the chart and read the borehole geometrical factor $\times 1000$. From this point draw a straight line through the R_m value of 0.35 ohm-m to intersect the nomograph at 5.8 mmho-m. Subtract this value for a measured conductivity corrected for borehole effects.



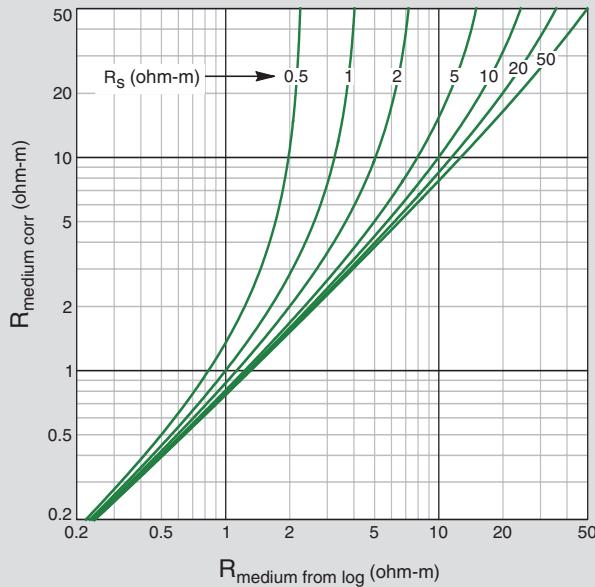
Simultaneous Triple Induction (STI) Bed Thickness Correction Medium Induction

Bed thickness 2–4 ft (0.6–1.2 m)

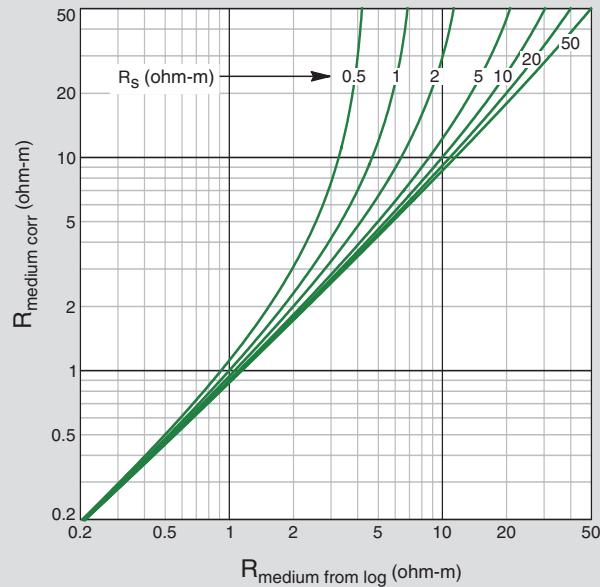
Bed thickness = 2 ft (0.6 m)



Bed thickness = 3 ft (0.9 m)

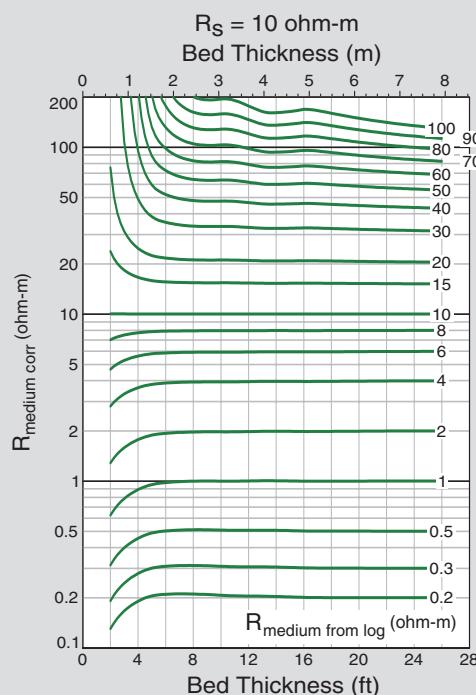
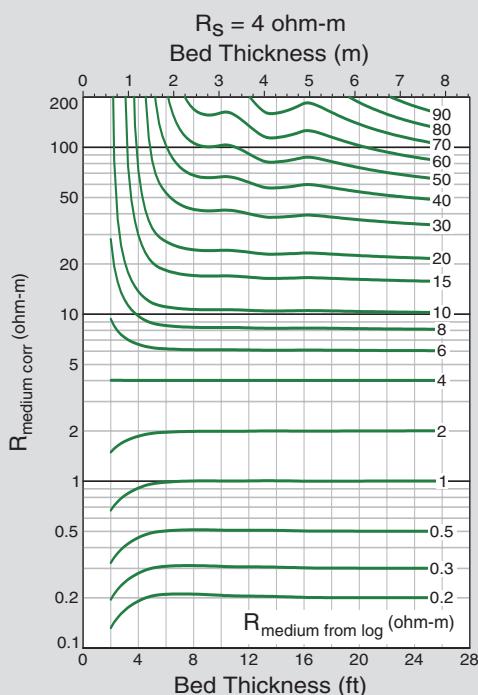
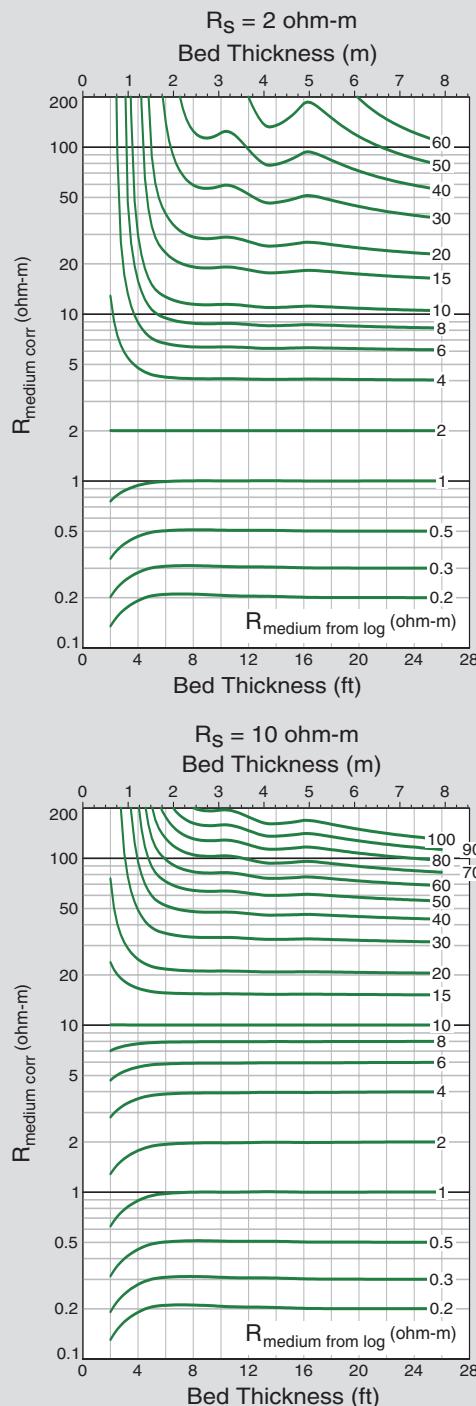
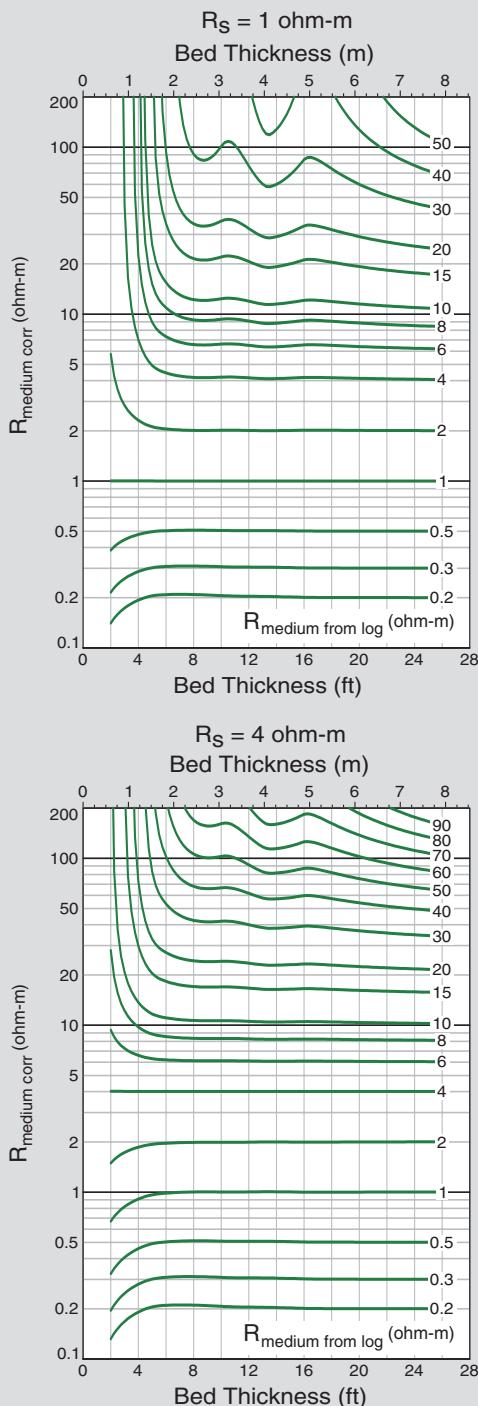


Bed thickness = 4 ft (1.2 m)



Simultaneous Triple Induction (STI) Bed Thickness Correction Medium Induction

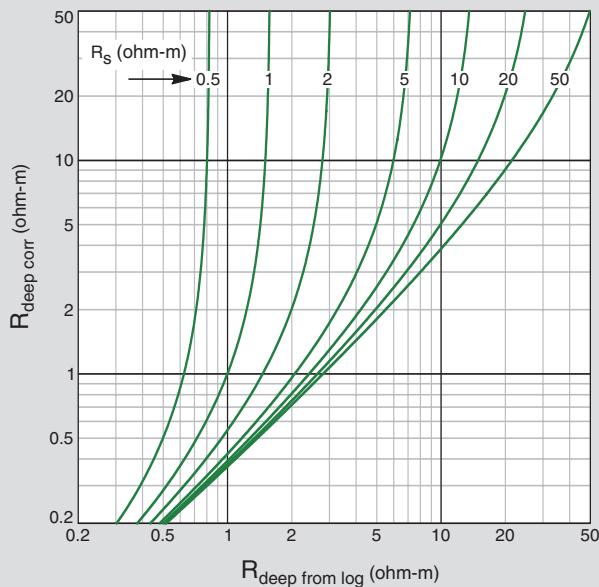
Bed thickness > 4 ft (1.2 m)



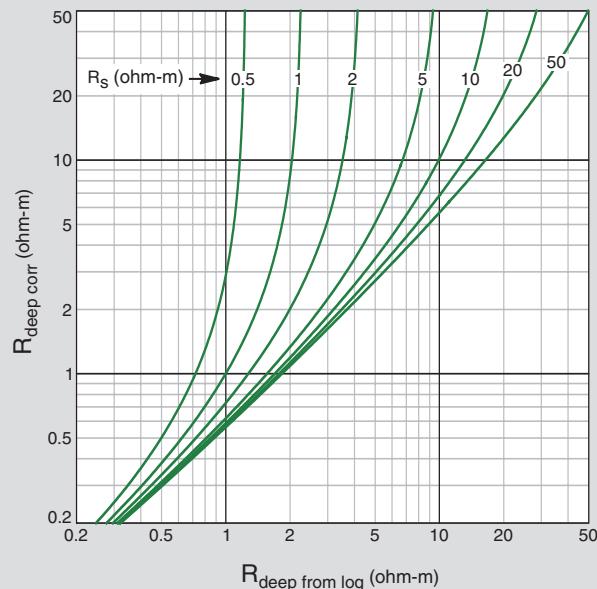
Simultaneous Triple Induction (STI) Bed Thickness Correction Deep Induction

Bed thickness 2–4 ft (0.6–1.2 m)

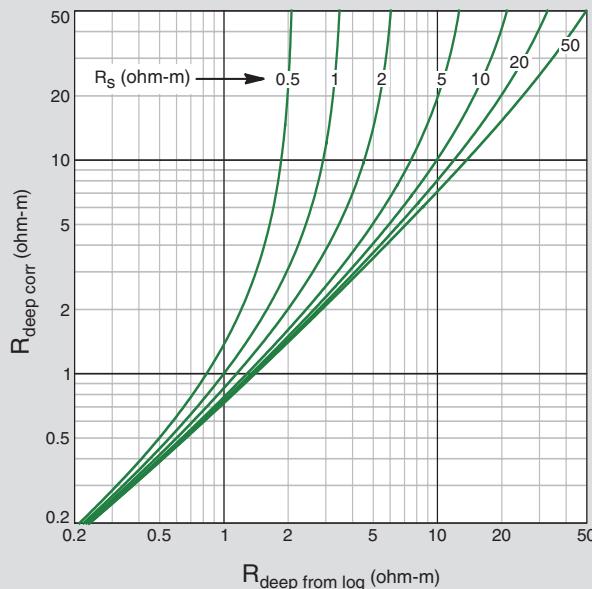
Bed thickness = 2 ft (0.6 m)



Bed thickness = 3 ft (0.9 m)



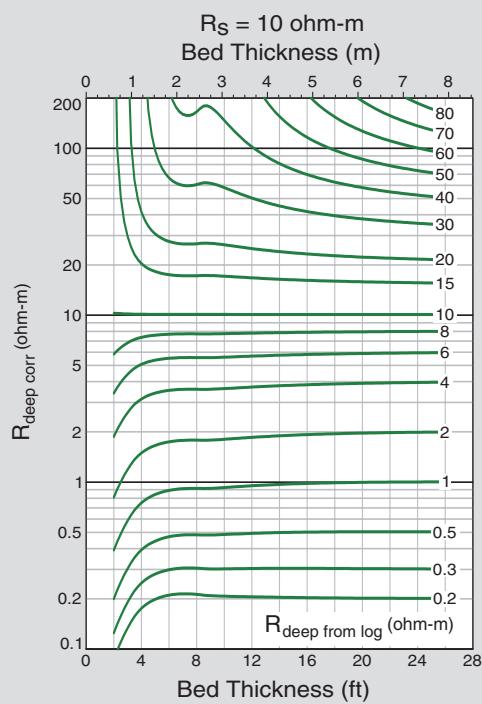
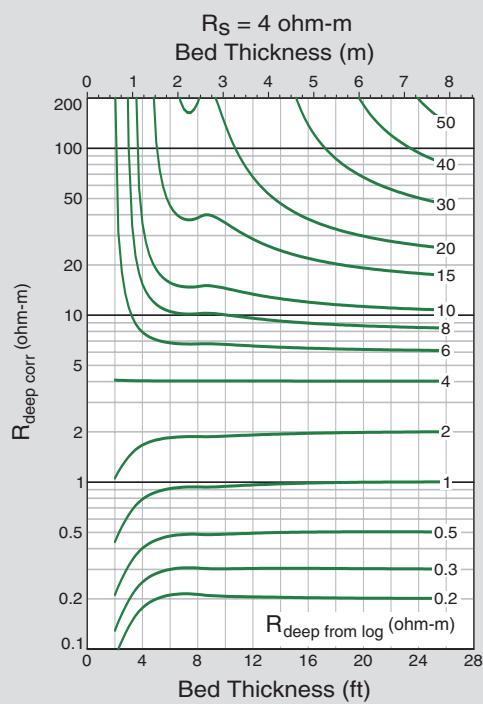
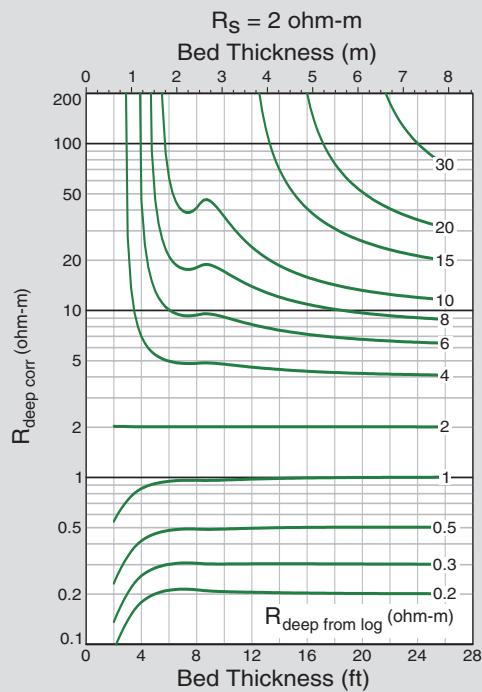
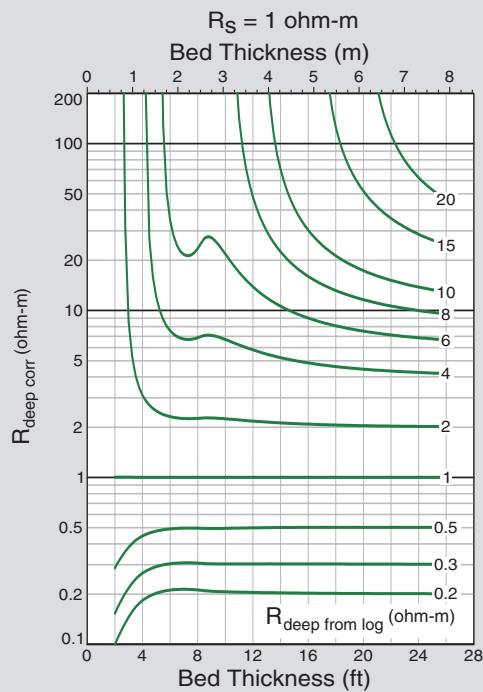
Bed thickness = 4 ft (1.2 m)



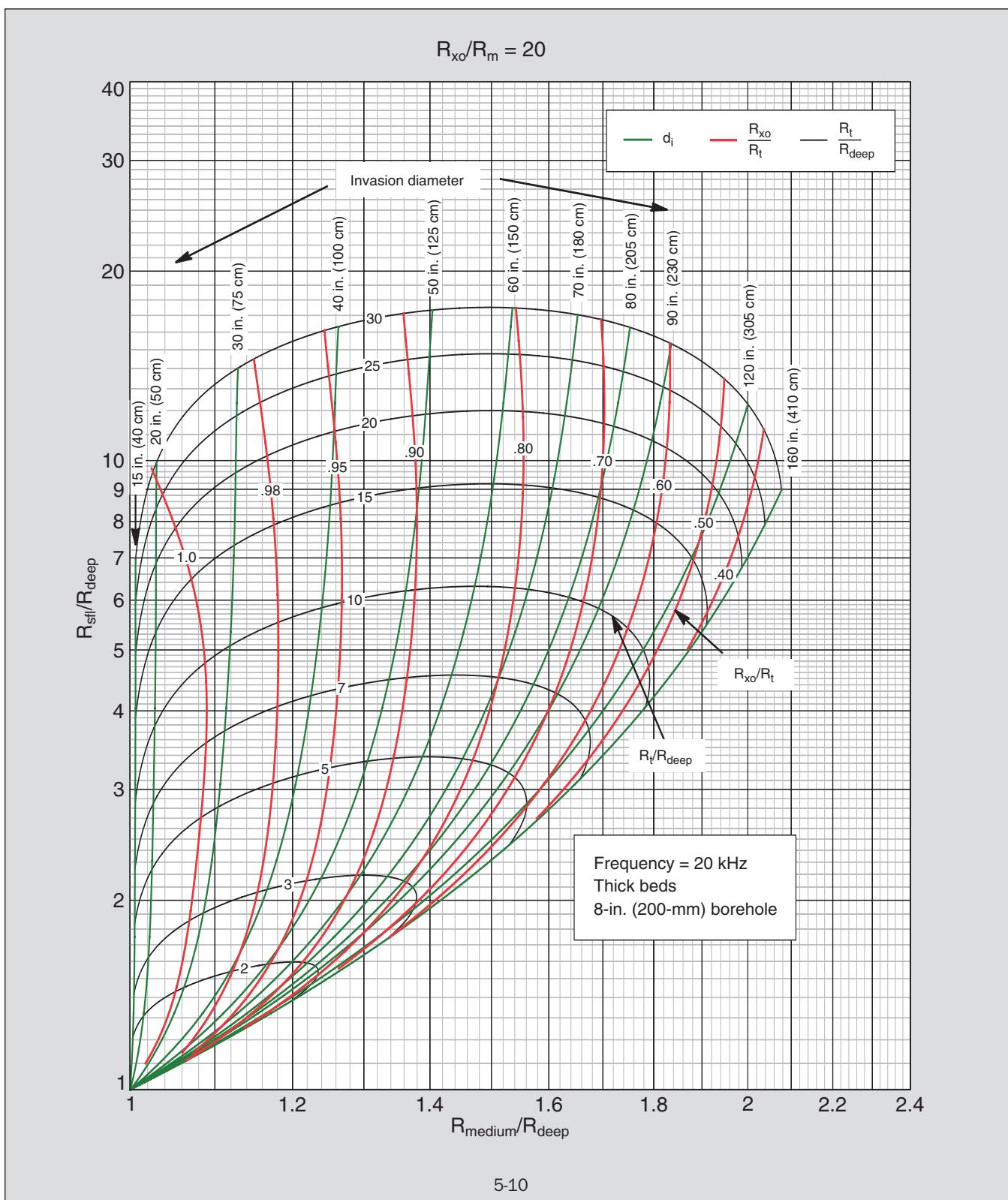
Simultaneous Triple Induction (STI) Bed Thickness Correction

Deep Induction

Bed thickness > 4 ft (1.2 m)

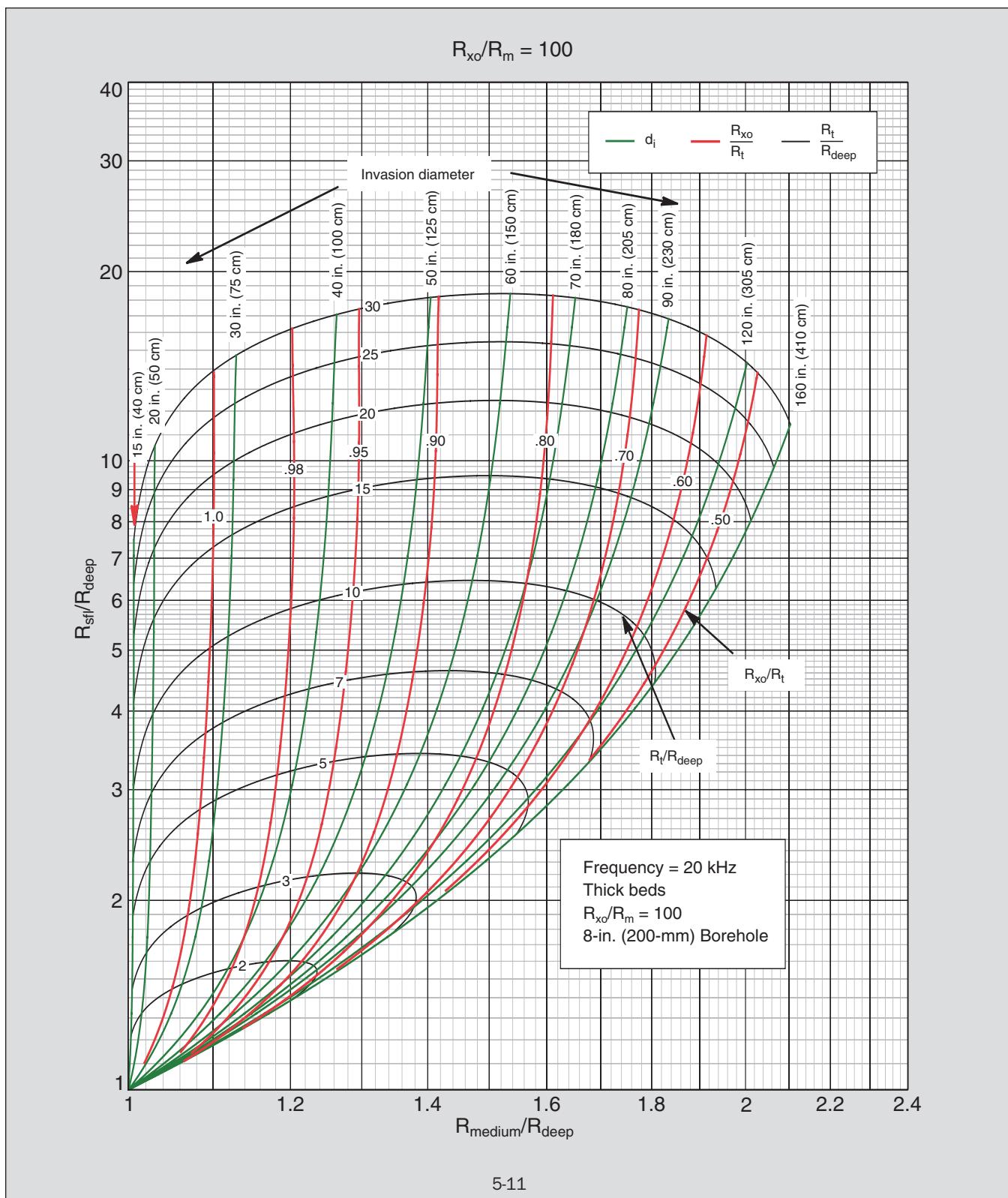


R_t and R_{xo} from Simultaneous Triple Induction (STI) – Spherically Focused Log (SFL)

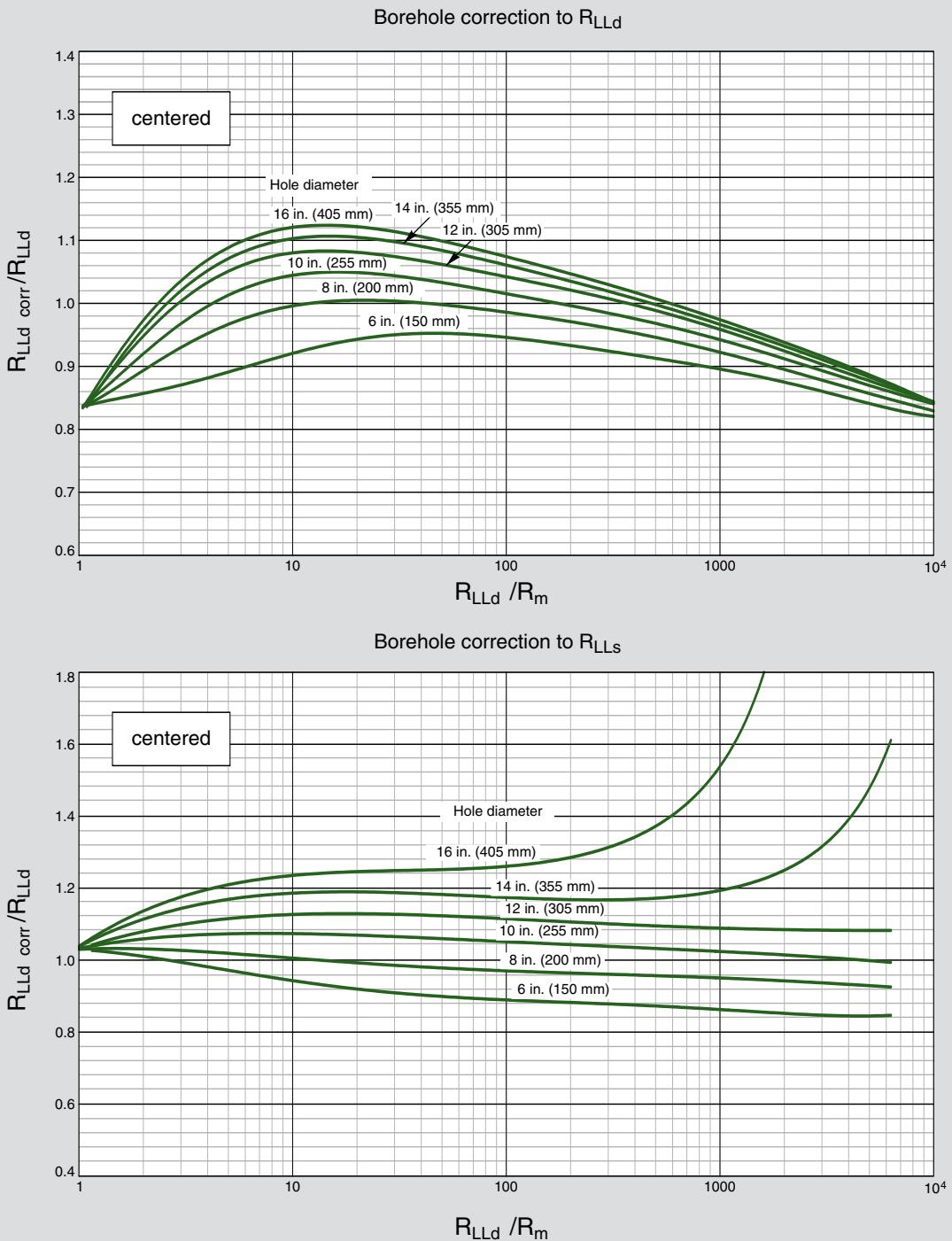


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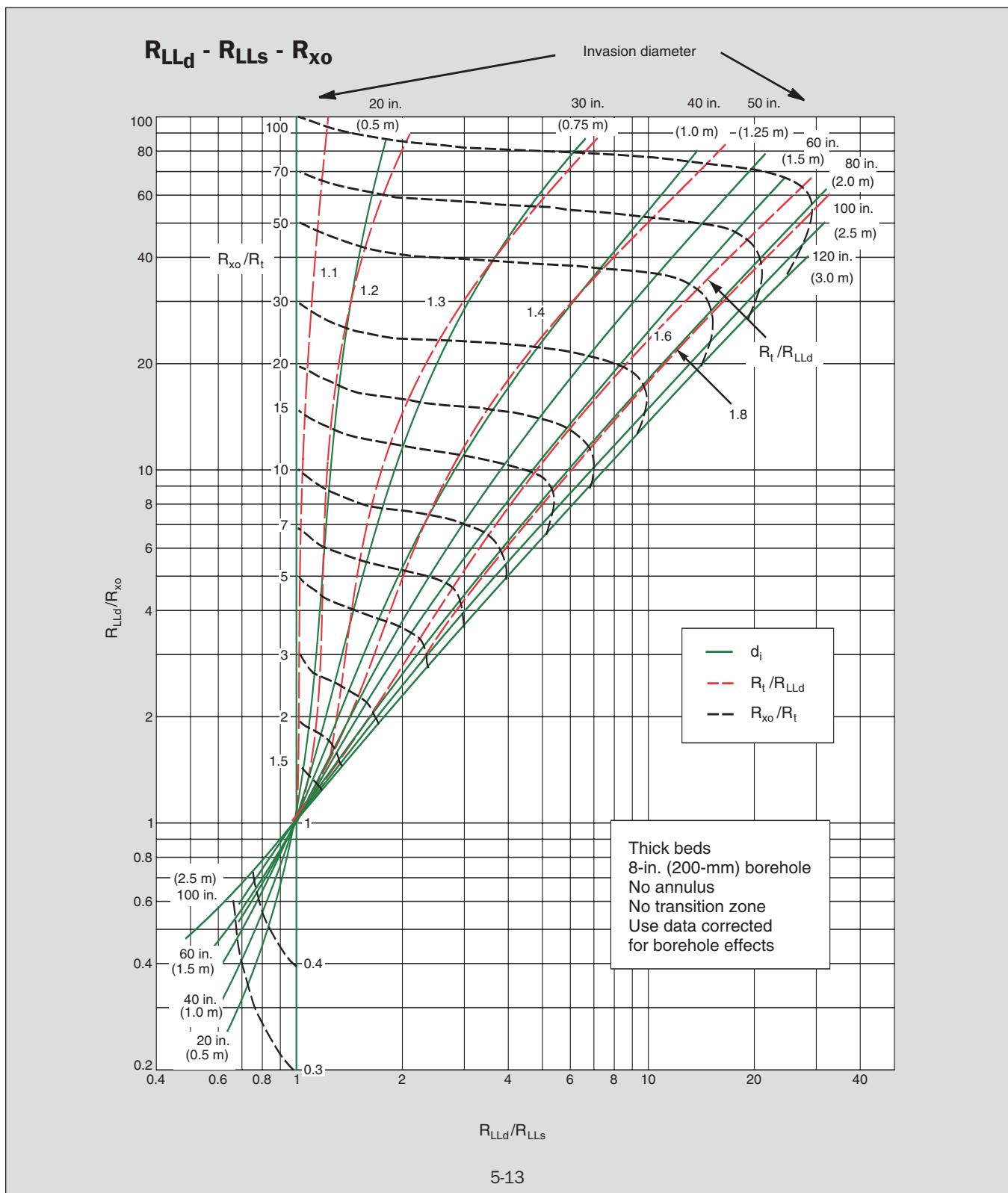
R_t and R_{xo} from Simultaneous Triple Induction (STI) – Spherically Focused Log (SFL)



Borehole Correction for Dual Laterolog (DLL)



R_t and R_{xo} from Dual Laterolog (DLL)



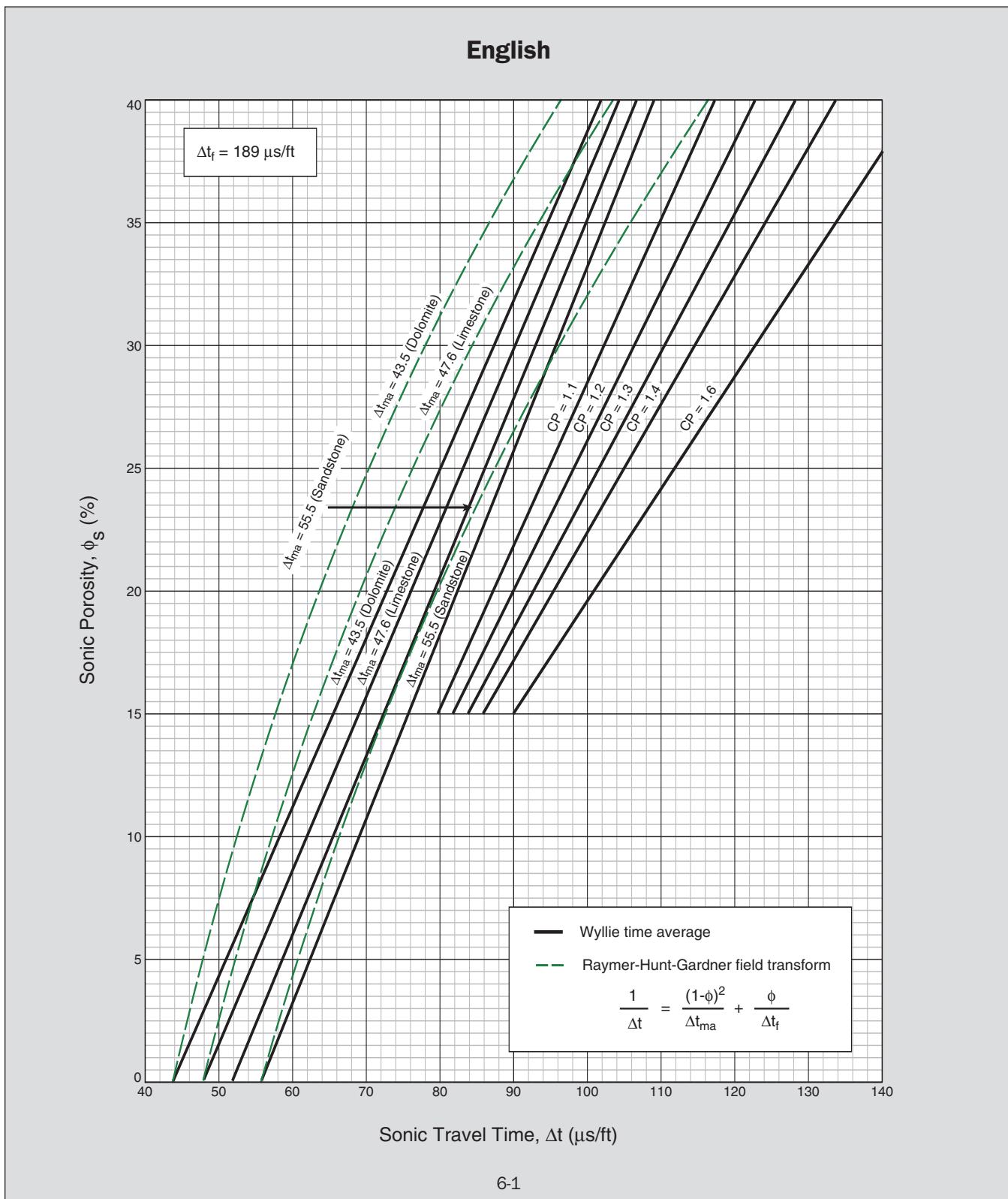
5-13

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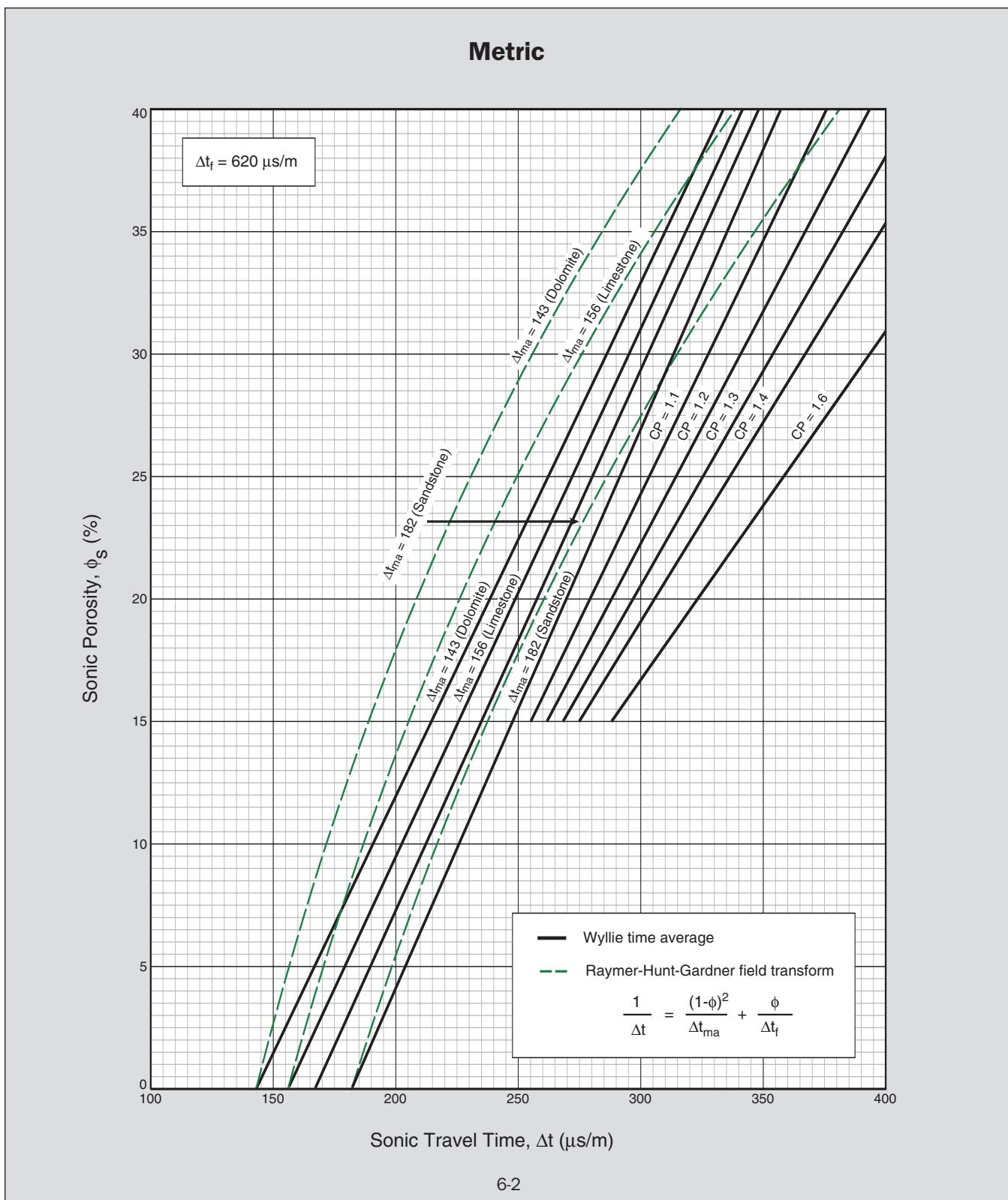
Section 6

Porosity and Lithology

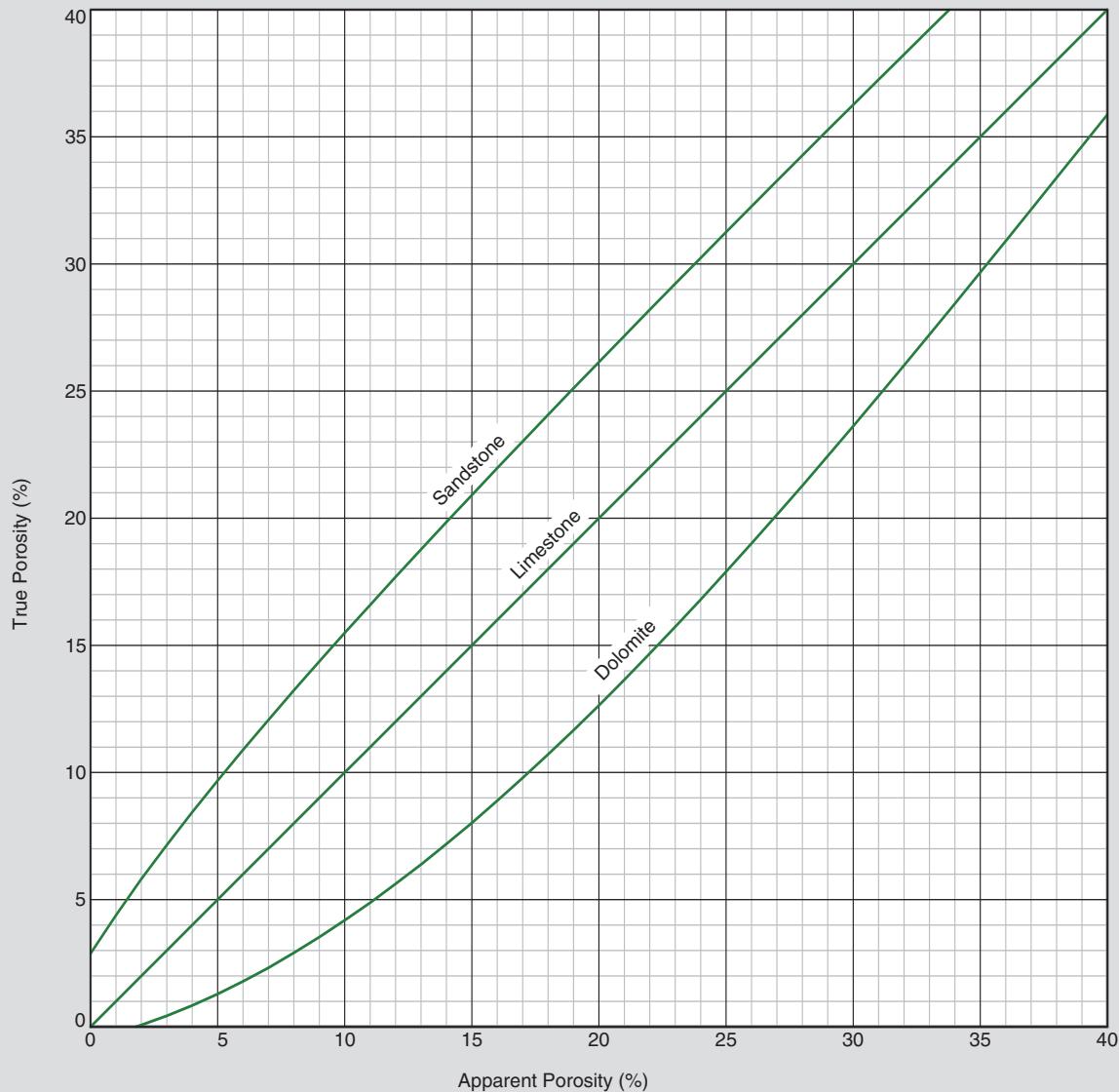
Porosity Determination from Sonic Log



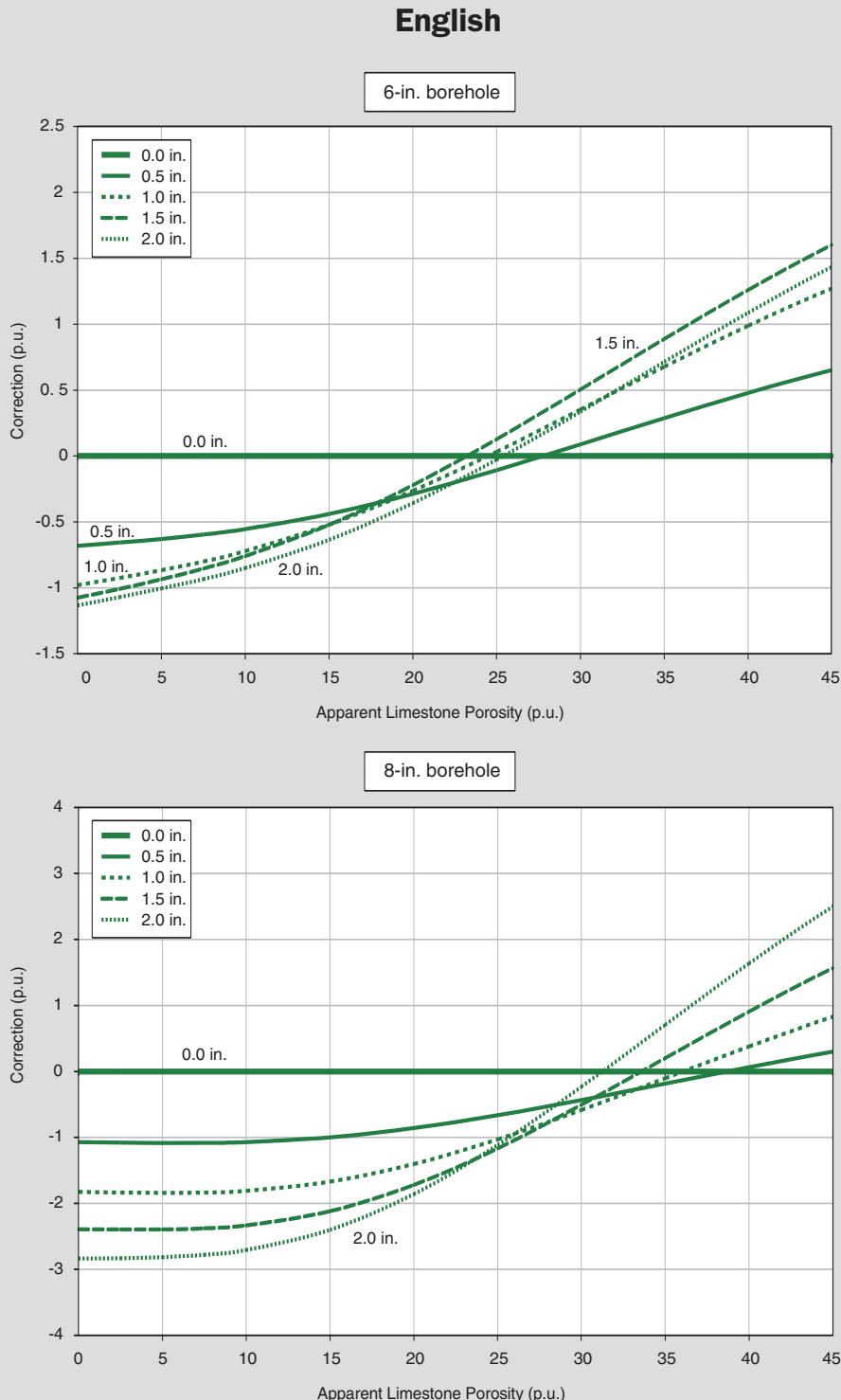
Porosity Determination from Sonic Log



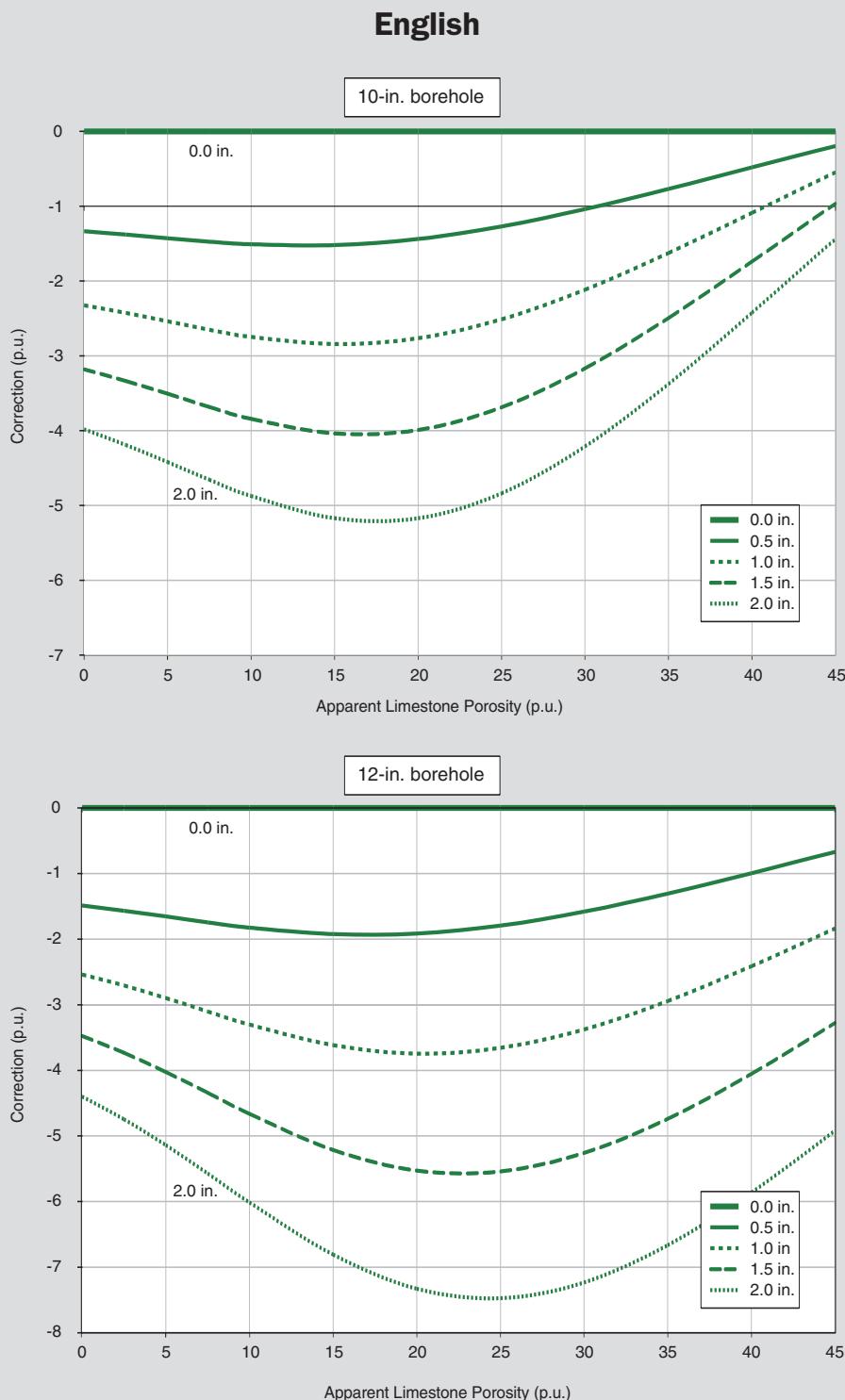
Compensated Neutron Lithology Effect



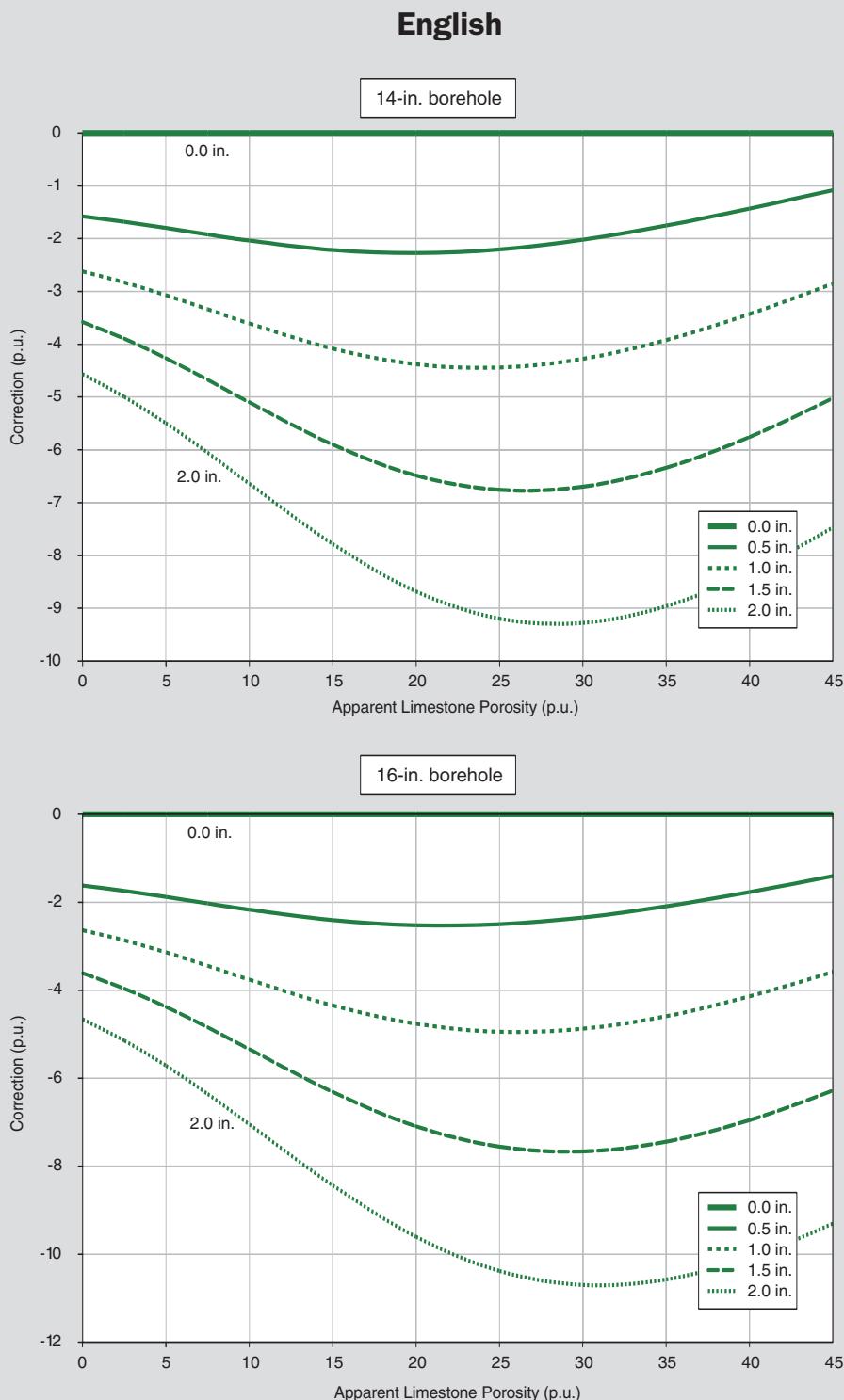
Compensated Neutron Standoff Correction



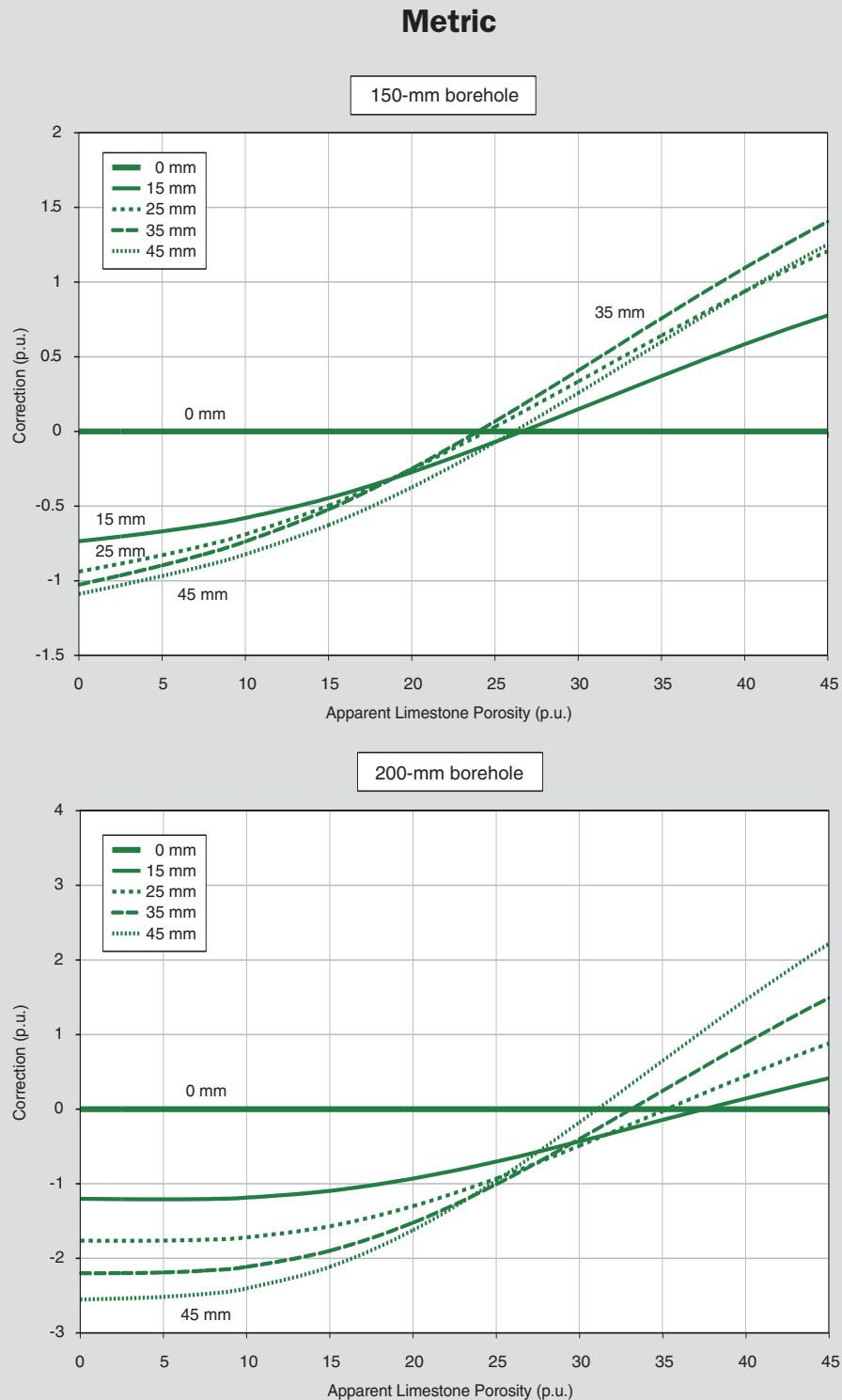
Compensated Neutron Standoff Correction



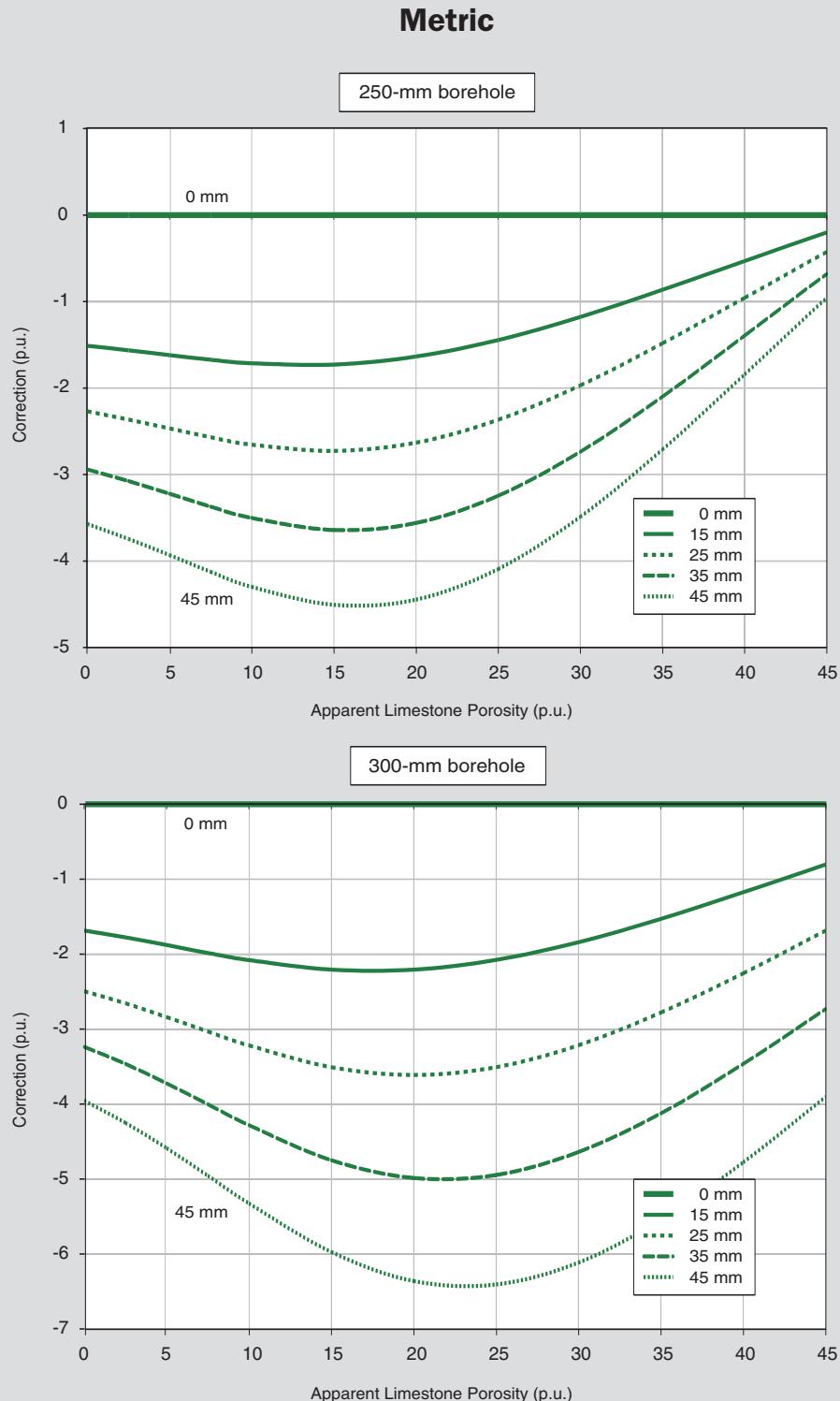
Compensated Neutron Standoff Correction



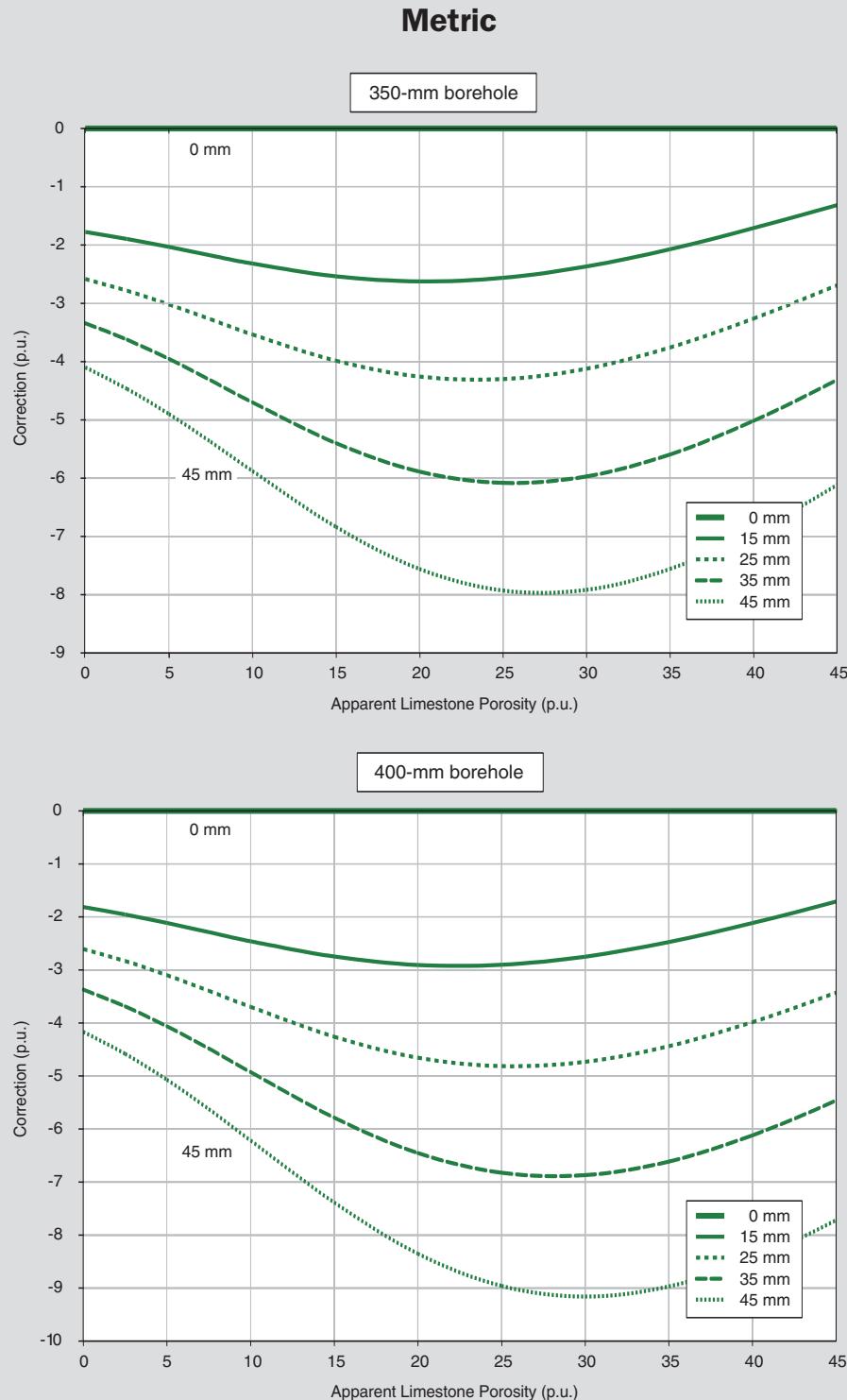
Compensated Neutron Standoff Correction



Compensated Neutron Standoff Correction

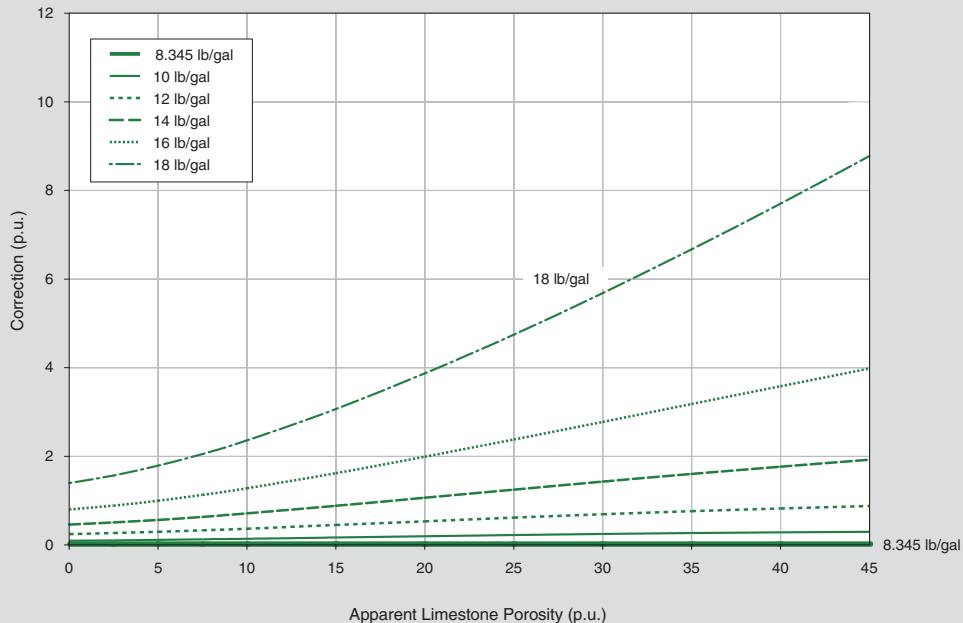


Compensated Neutron Standoff Correction

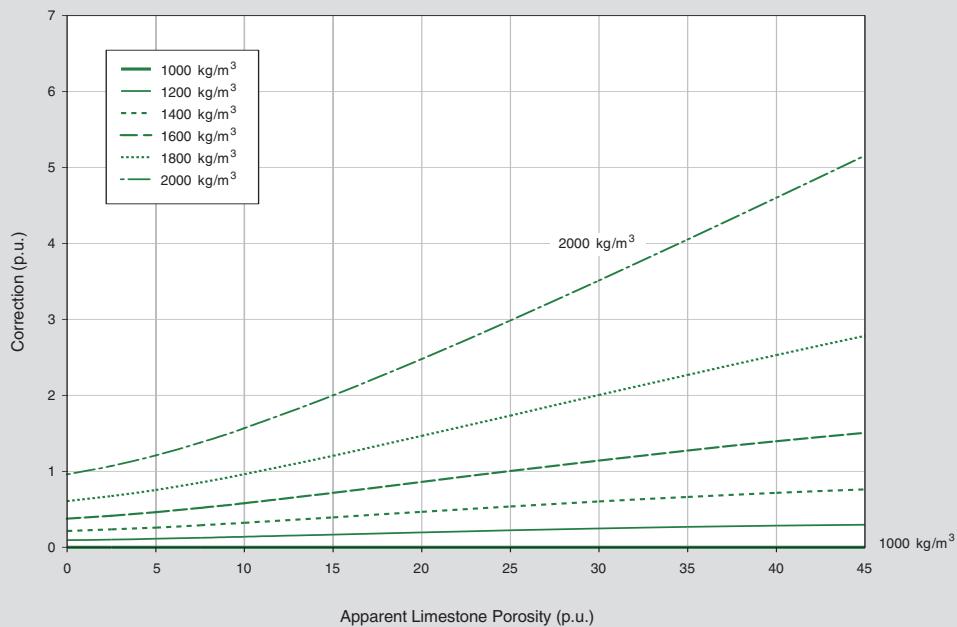


Compensated Neutron Mud Weight Correction for Calcite Mud

English



Metric

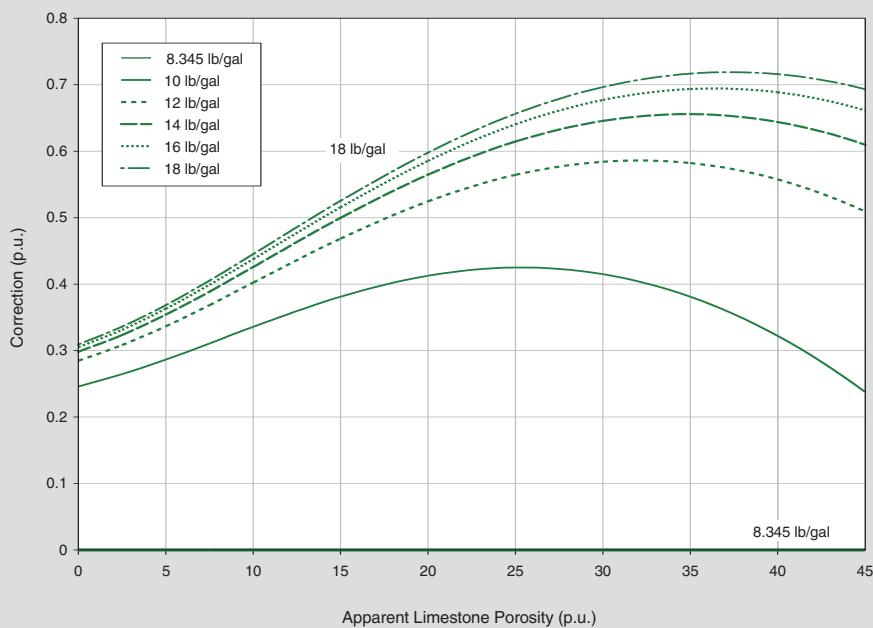


6-10

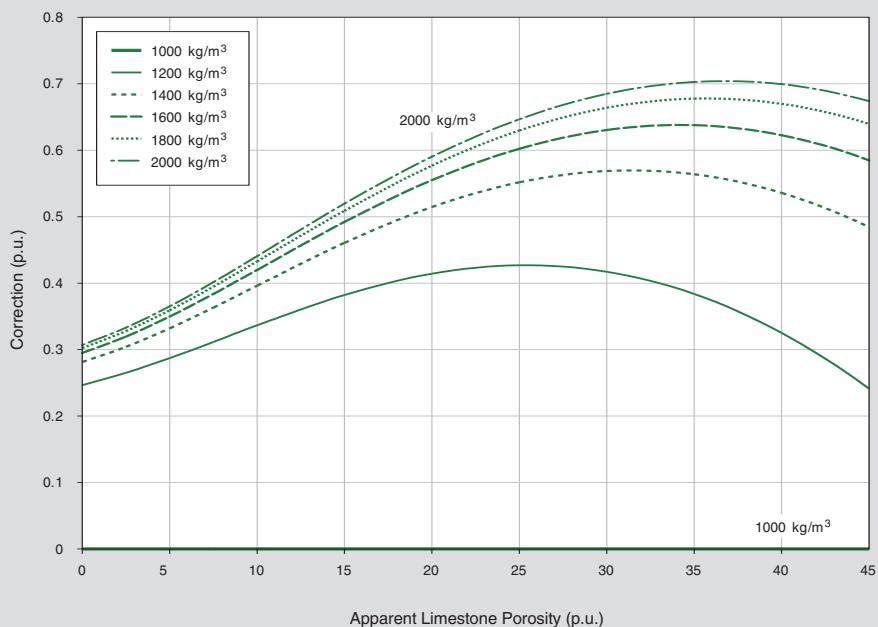
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Compensated Neutron Mud Weight Correction for Barite Mud

English

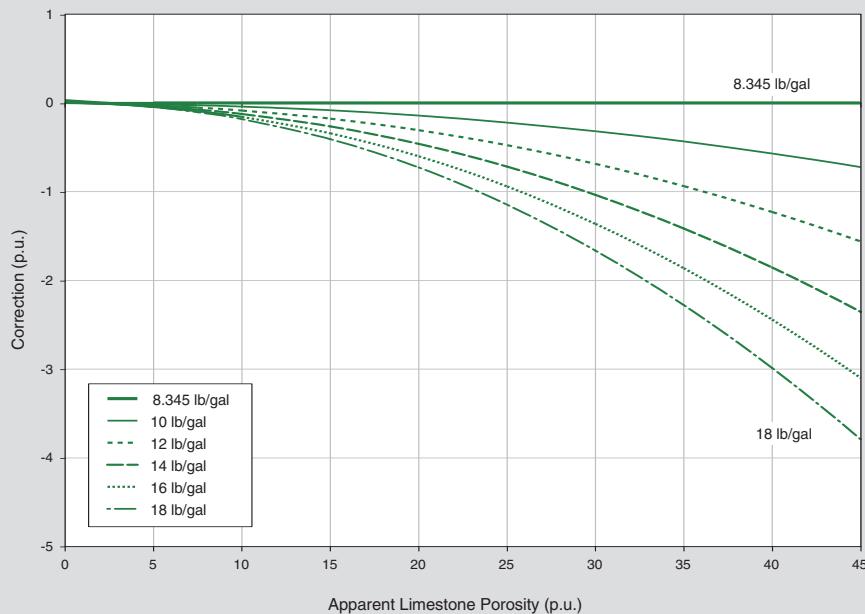


Metric

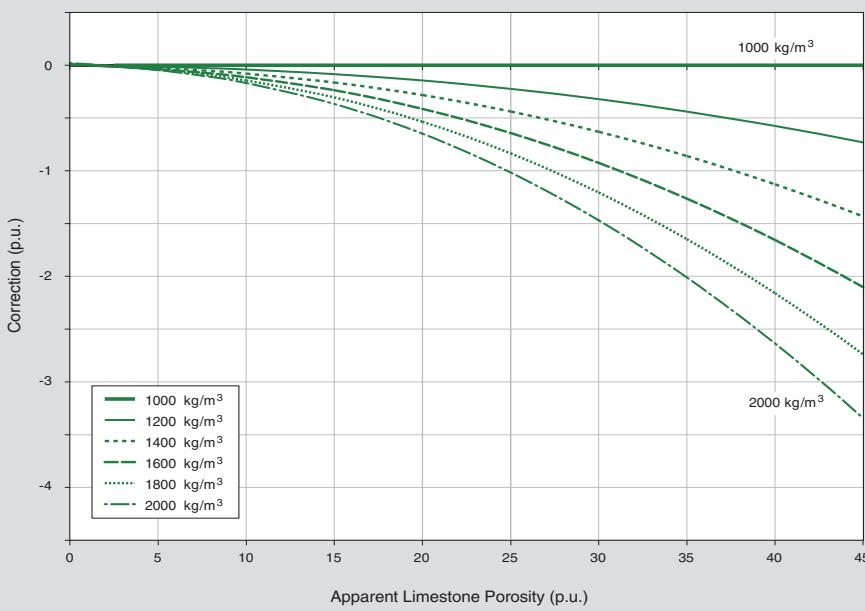


Compensated Neutron Mud Weight Correction for Hematite Mud

English

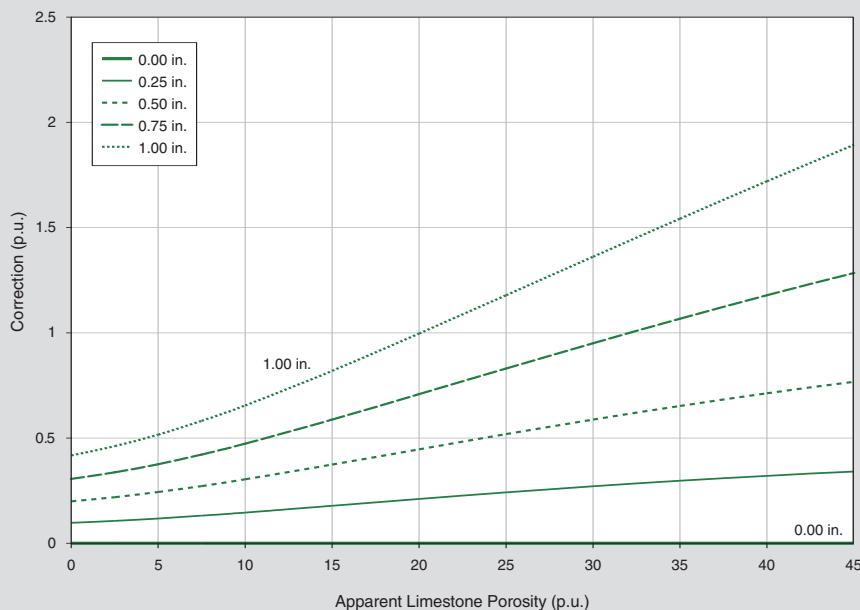


Metric

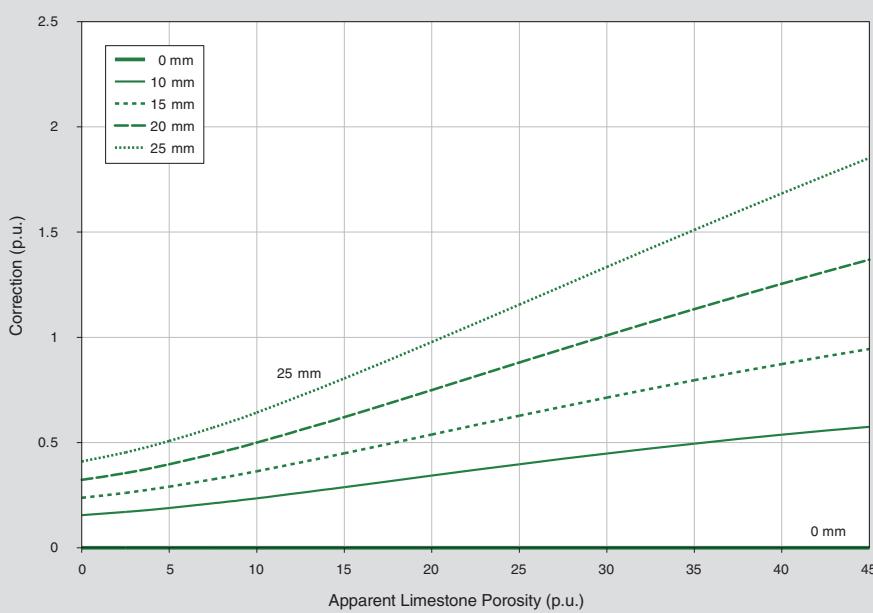


Compensated Neutron Mudcake Correction for Calcite Mud

English

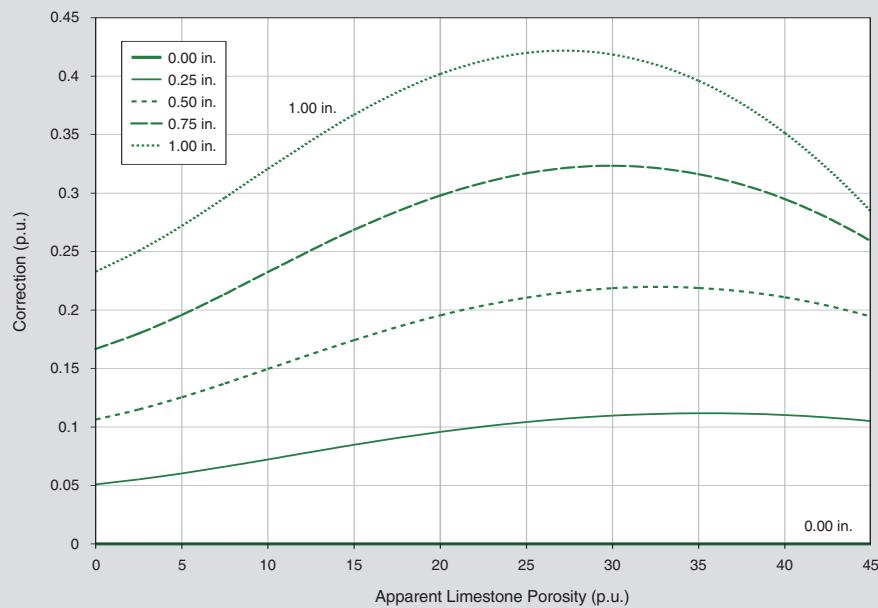


Metric

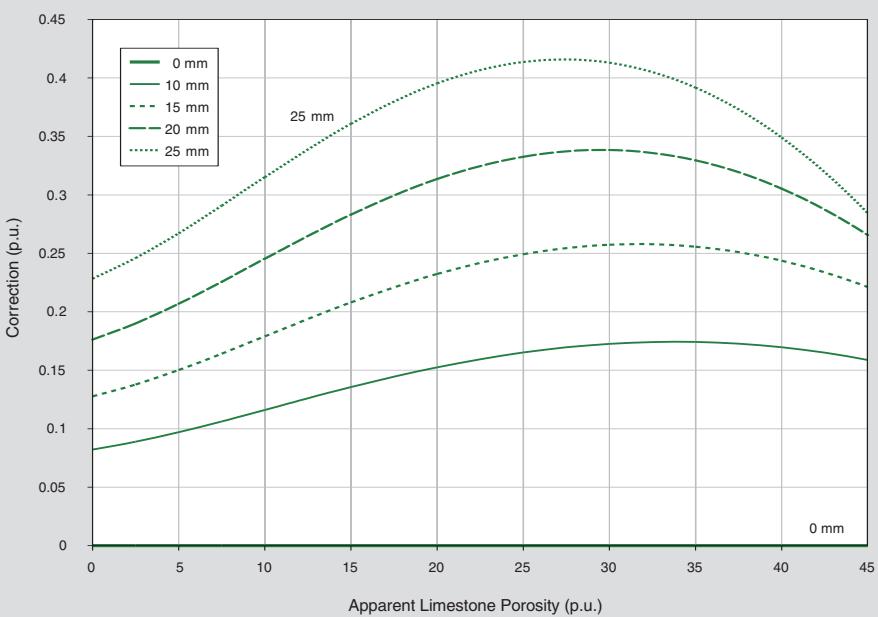


Compensated Neutron Mudcake Correction for Barite Mud

English

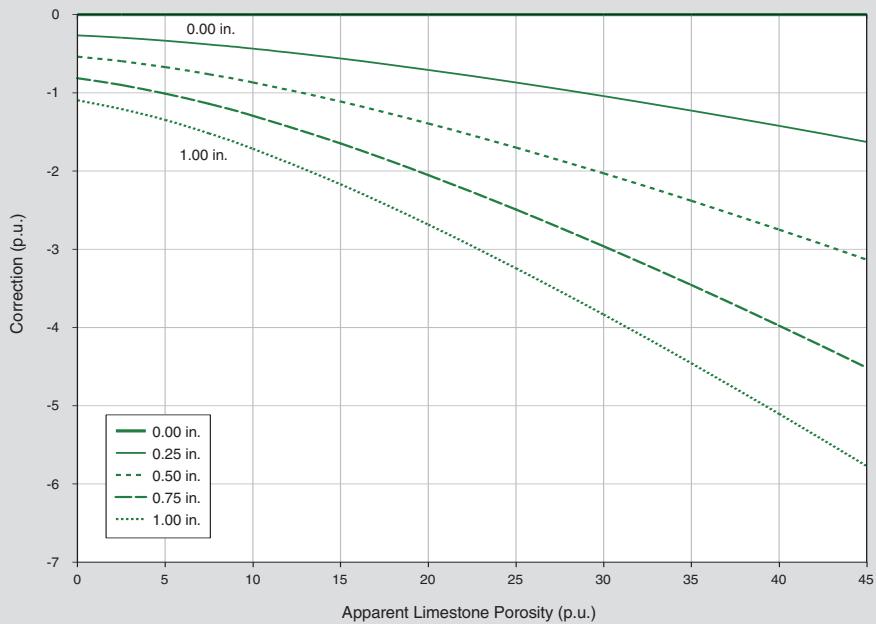


Metric

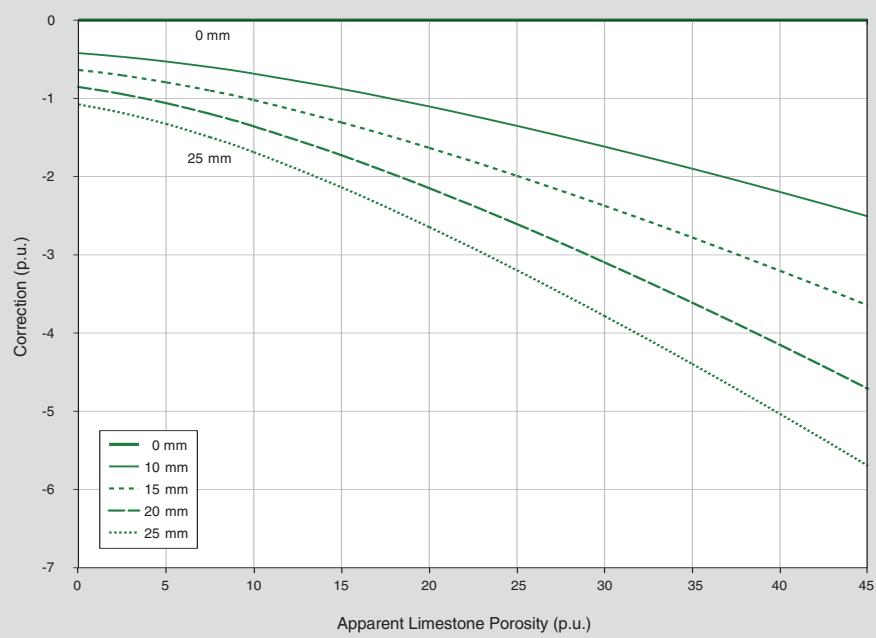


Compensated Neutron Mudcake Correction for Hematite Mud

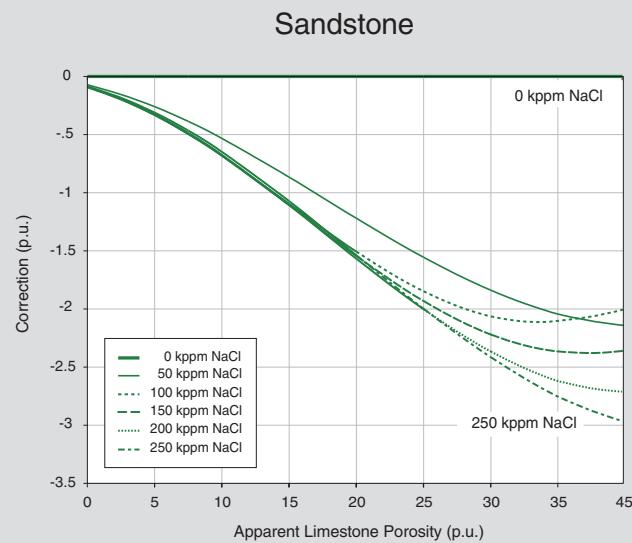
English



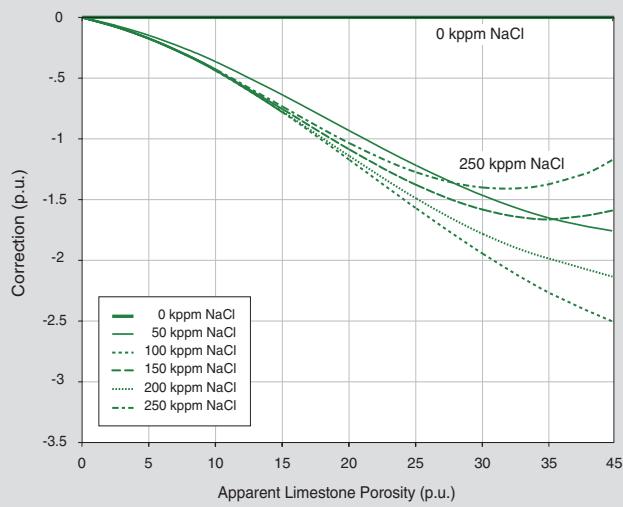
Metric



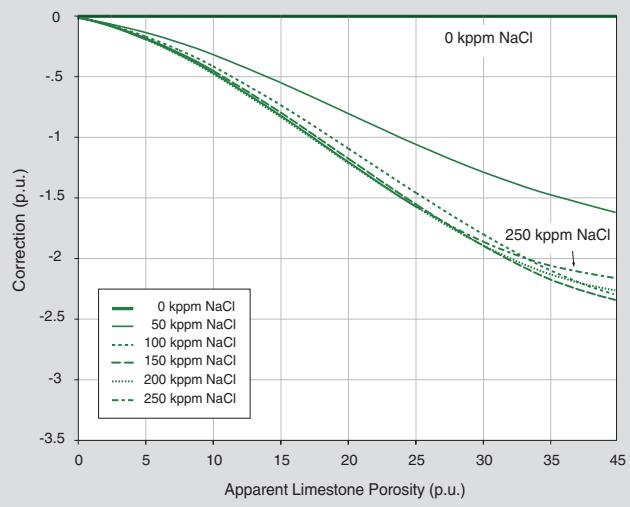
Compensated Neutron Formation Salinity Correction



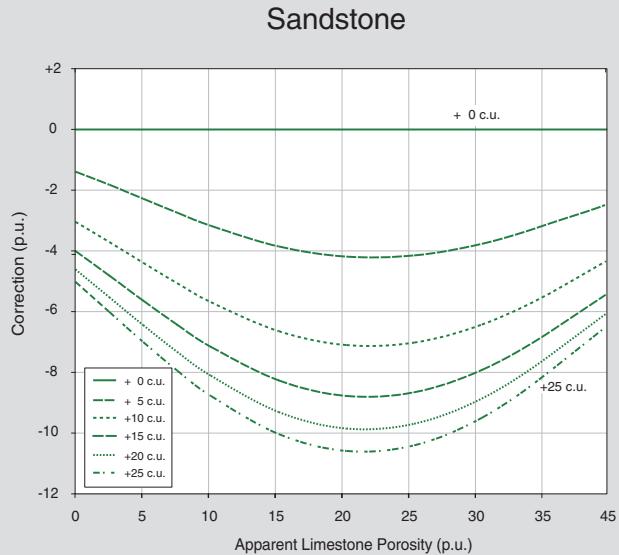
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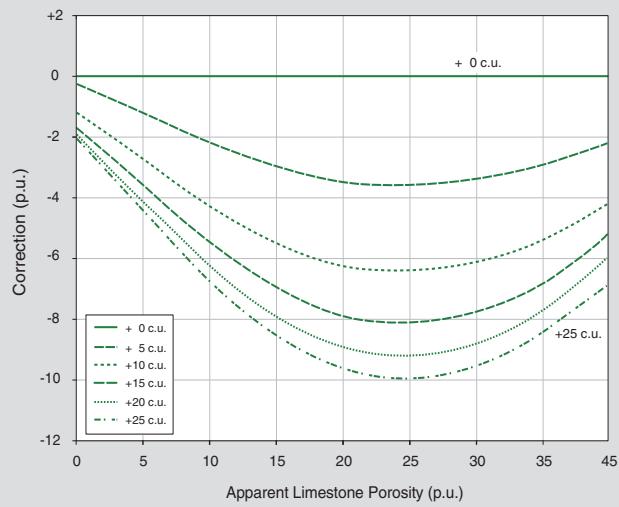
Dolomite



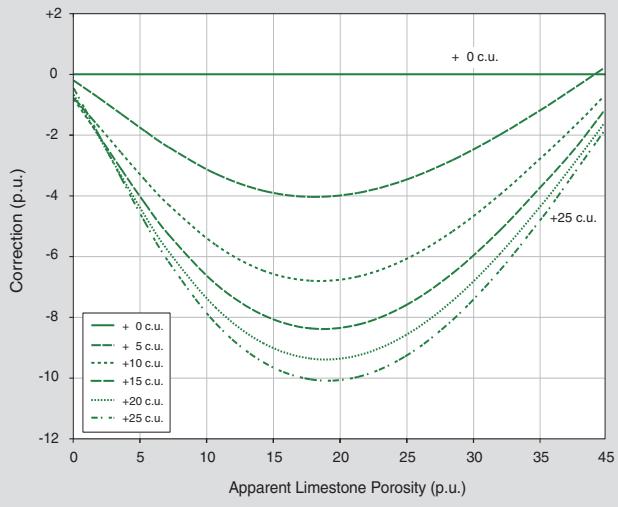
Compensated Neutron Formation Matrix Capture Cross Section Correction



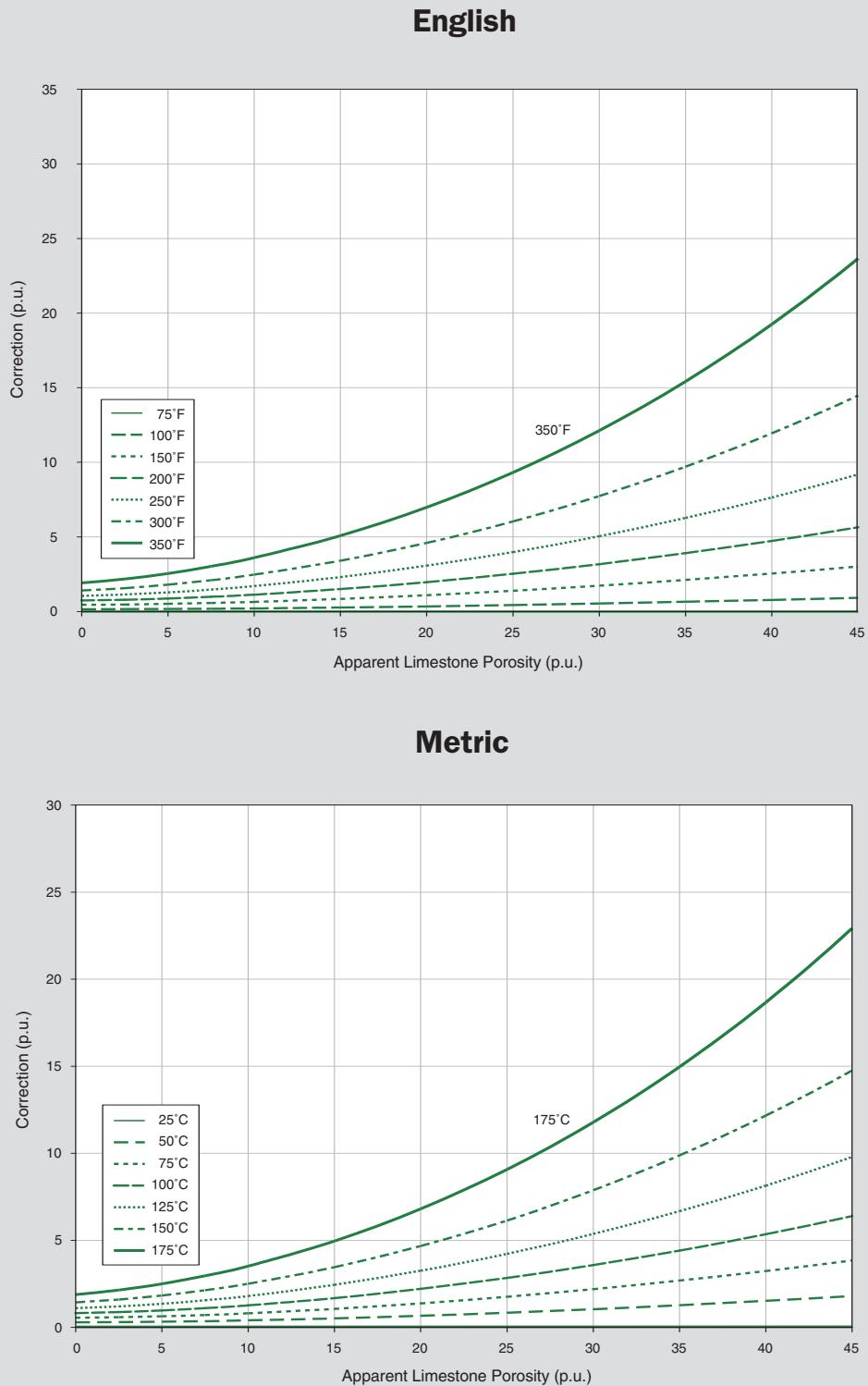
Limestone



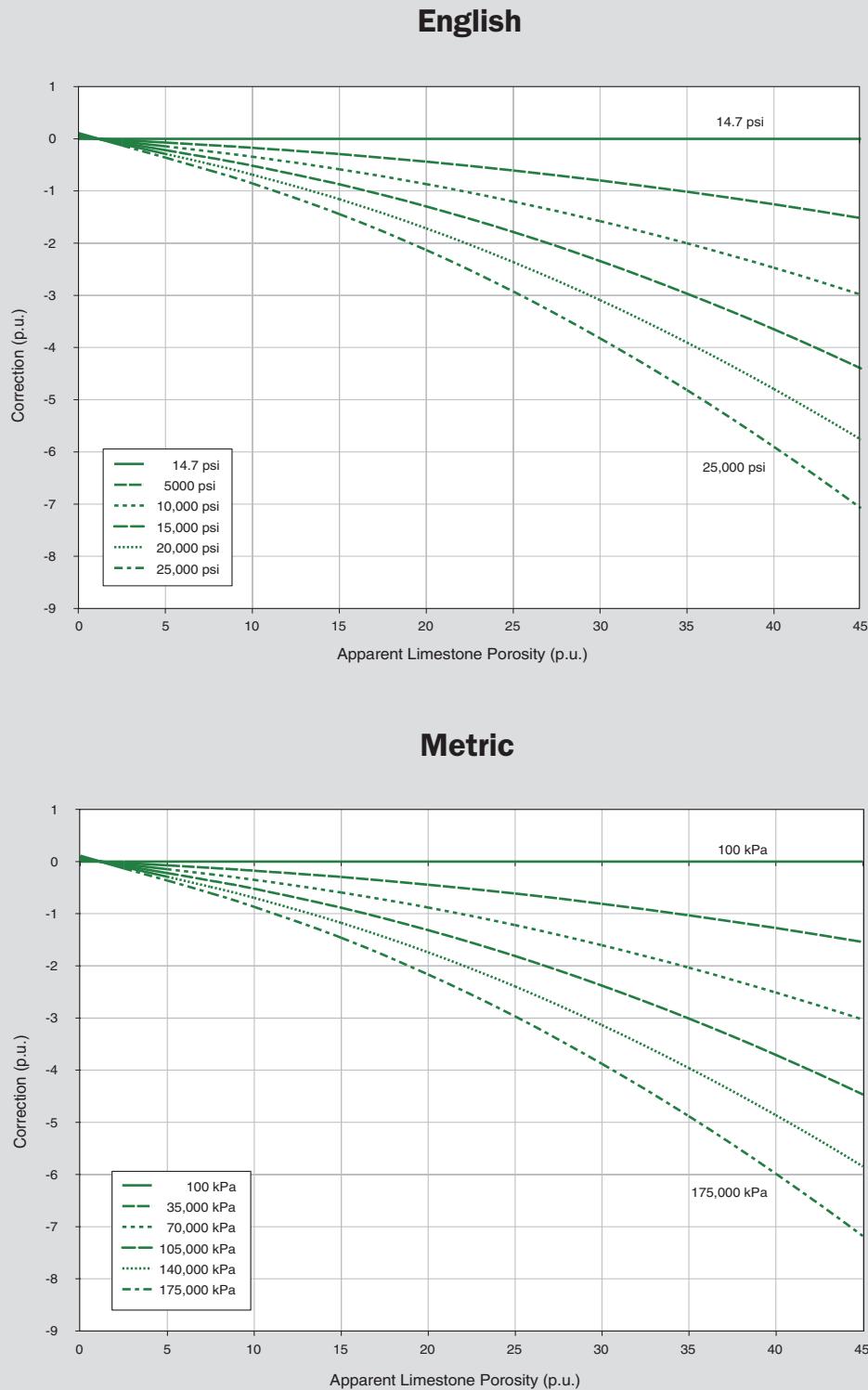
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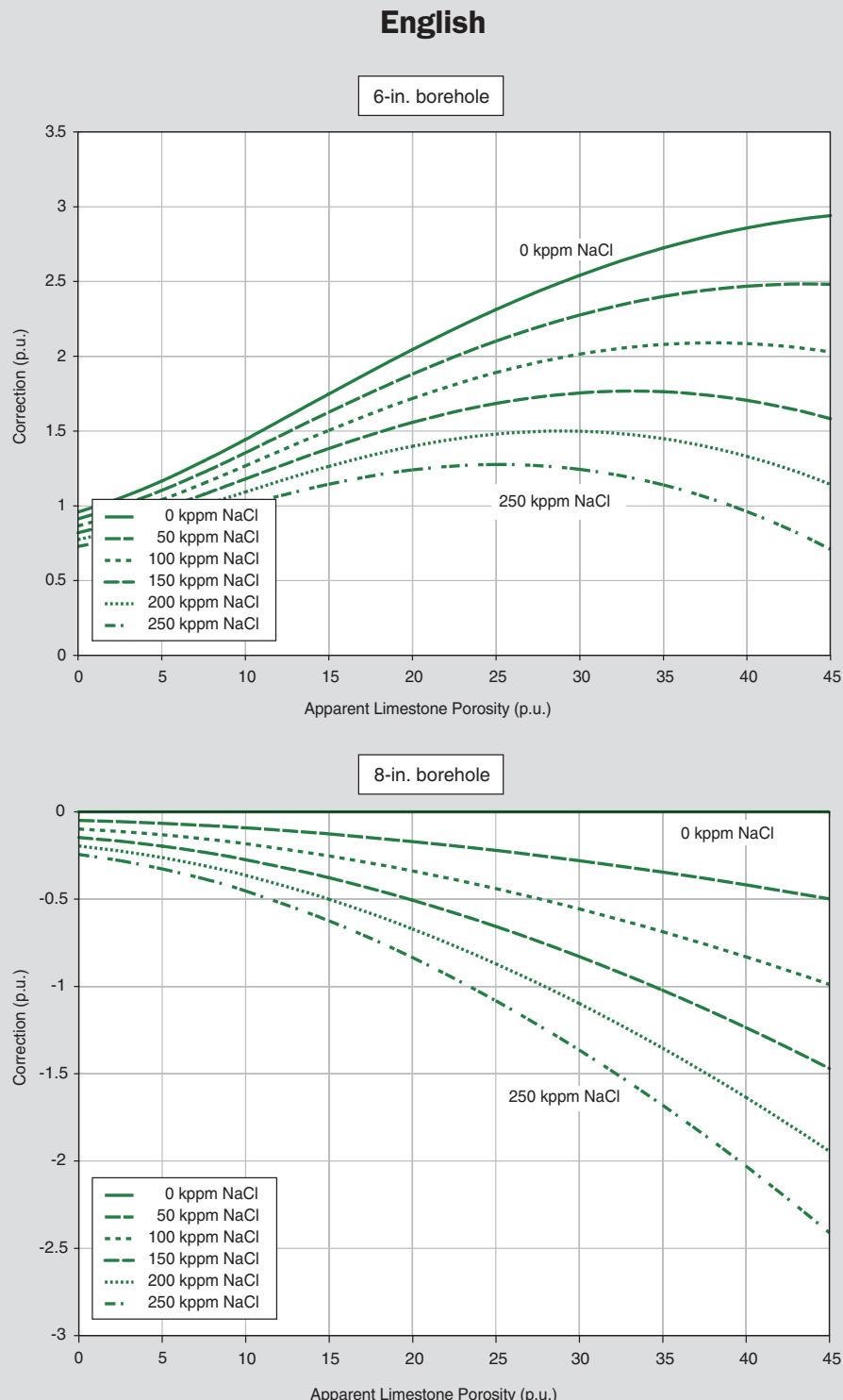
Compensated Neutron Temperature Correction



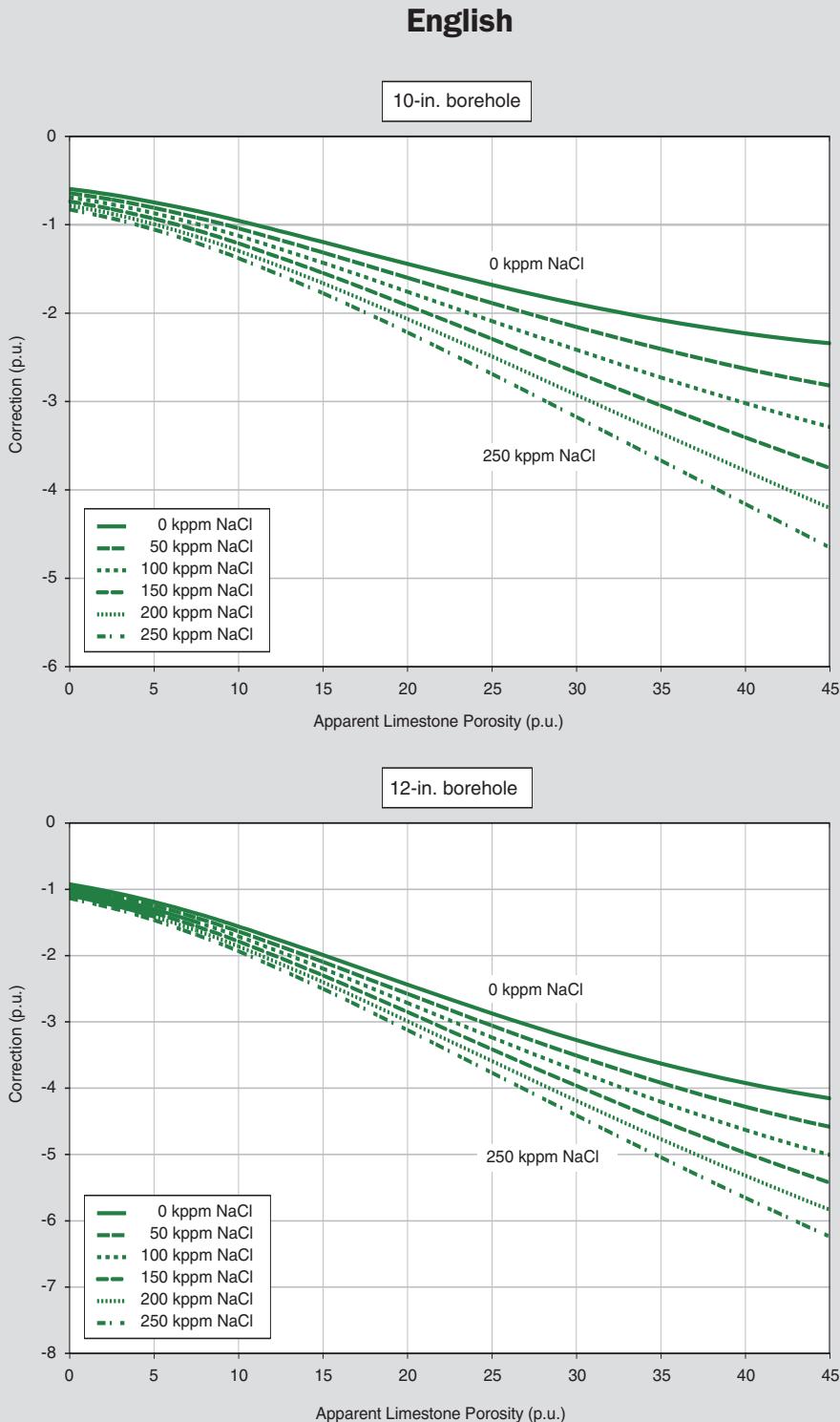
Compensated Neutron Pressure Correction



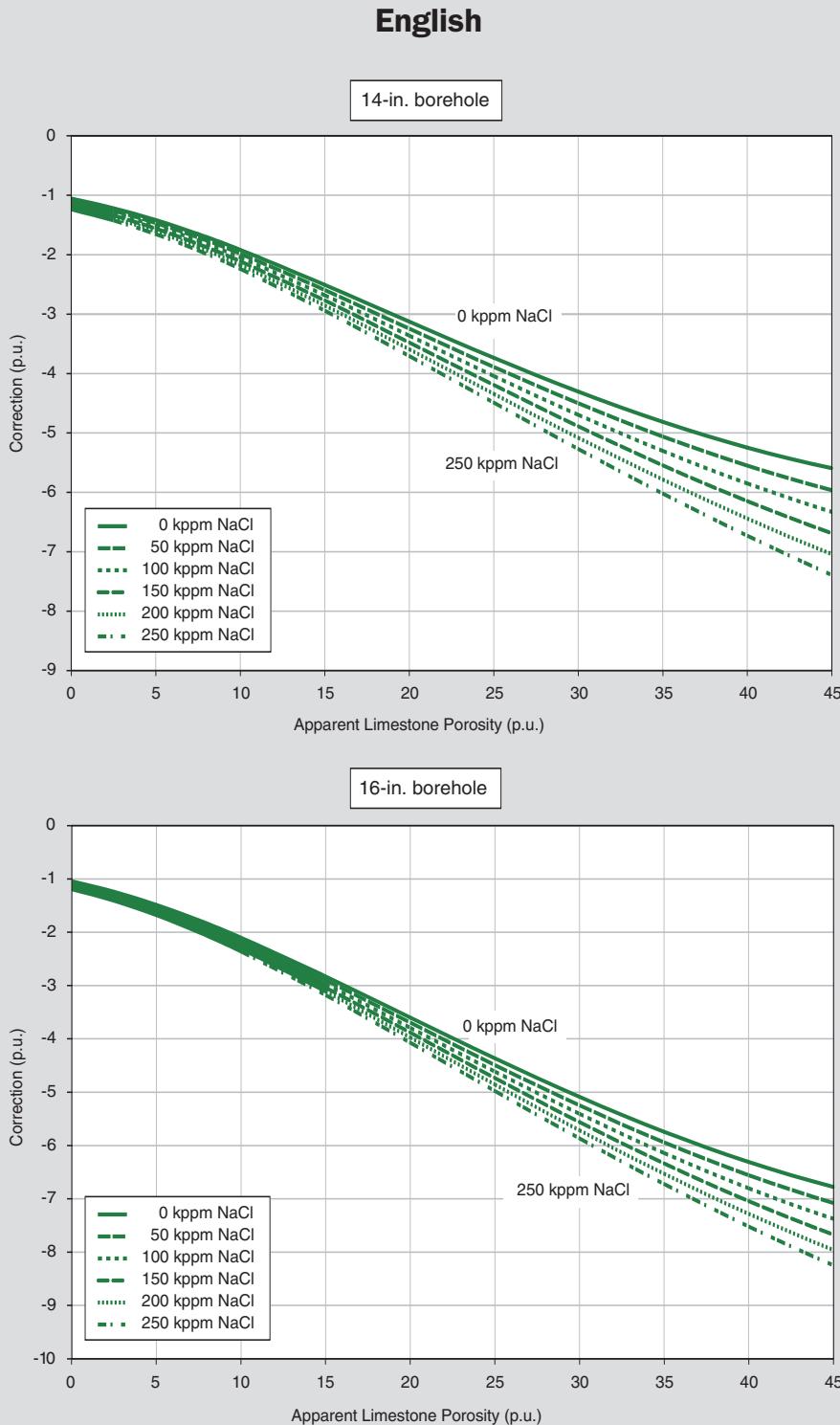
Compensated Neutron Borehole Size and Salinity Correction



Compensated Neutron Borehole Size and Salinity Correction



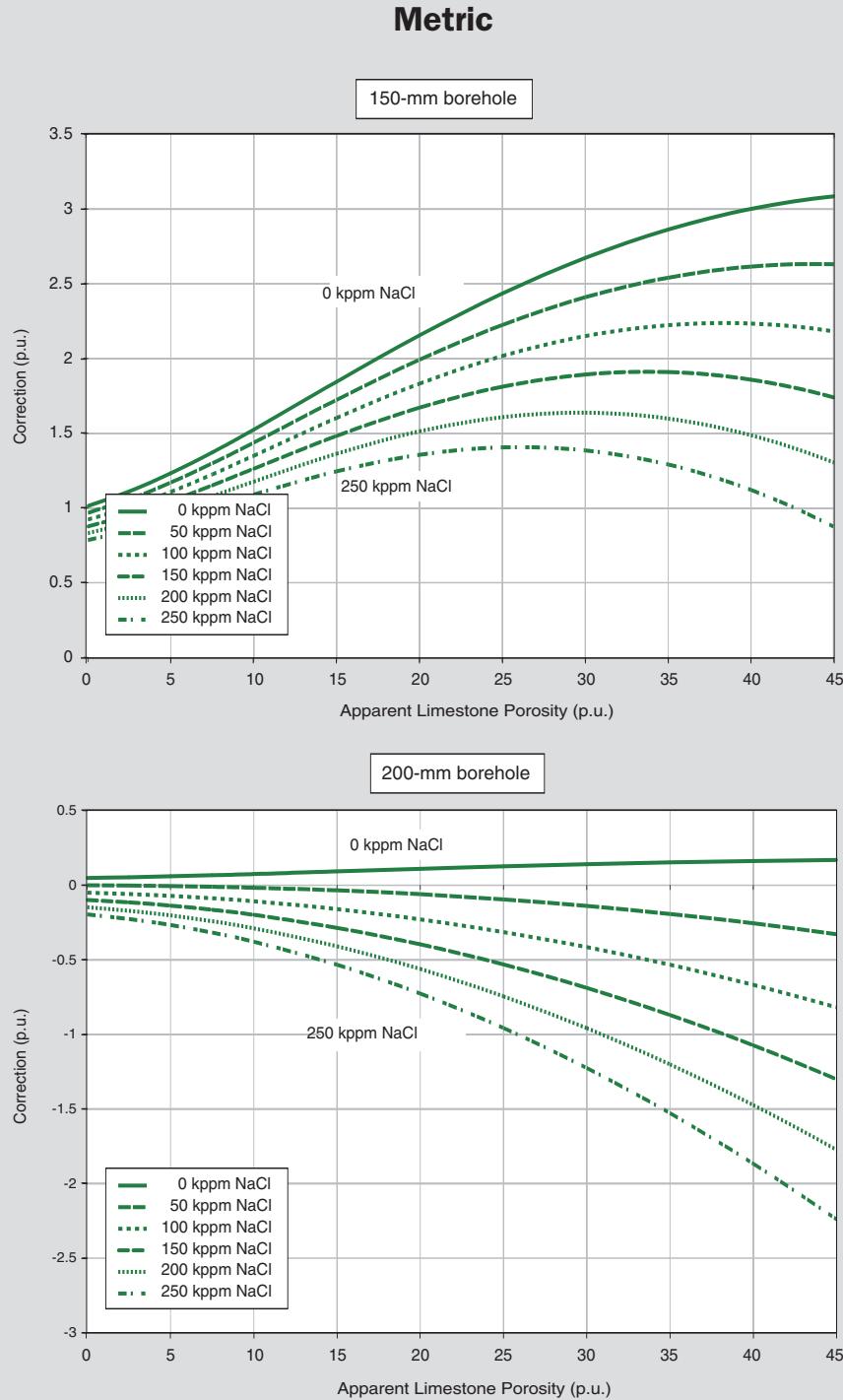
Compensated Neutron Borehole Size and Salinity Correction



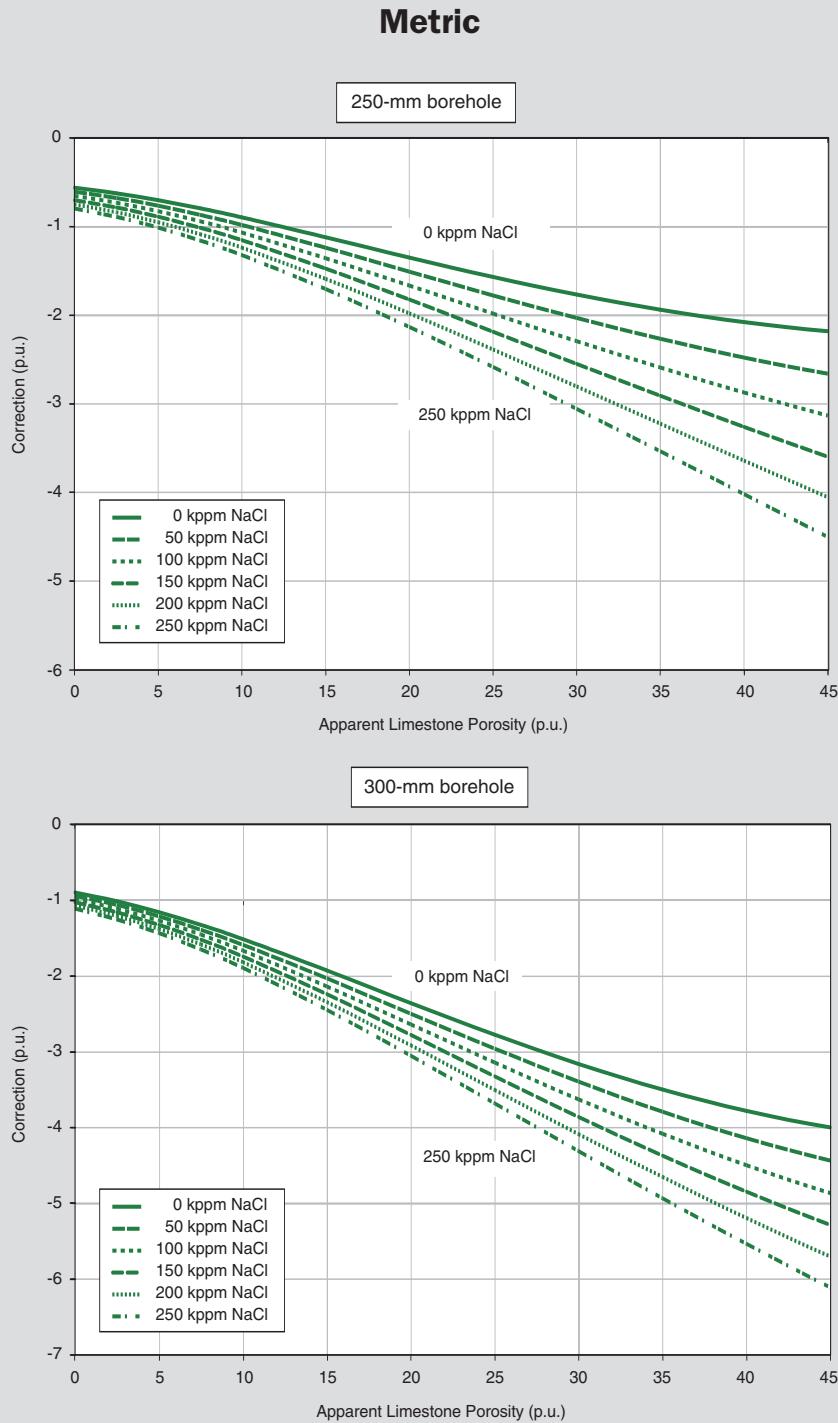
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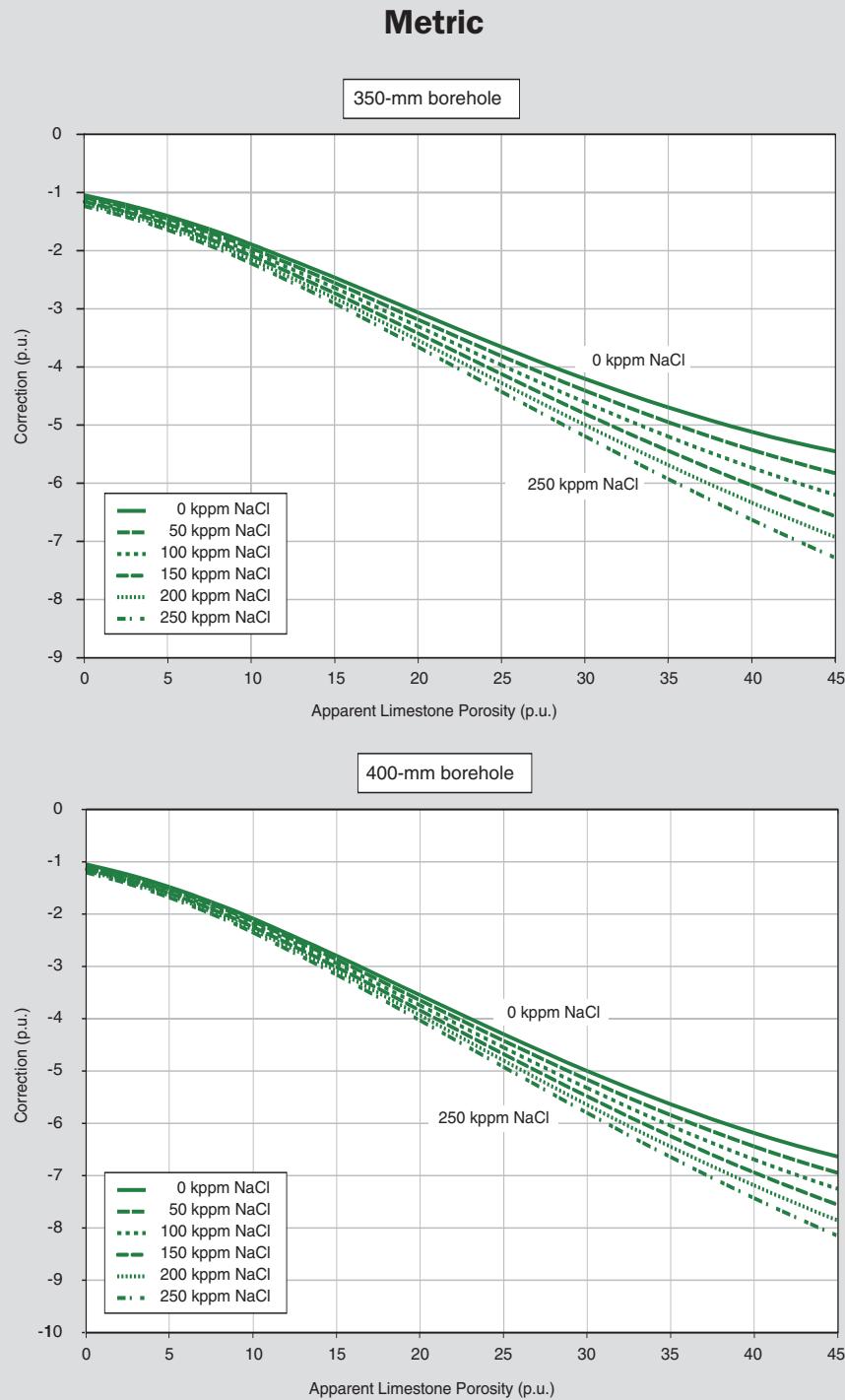
Compensated Neutron Borehole Size and Salinity Correction



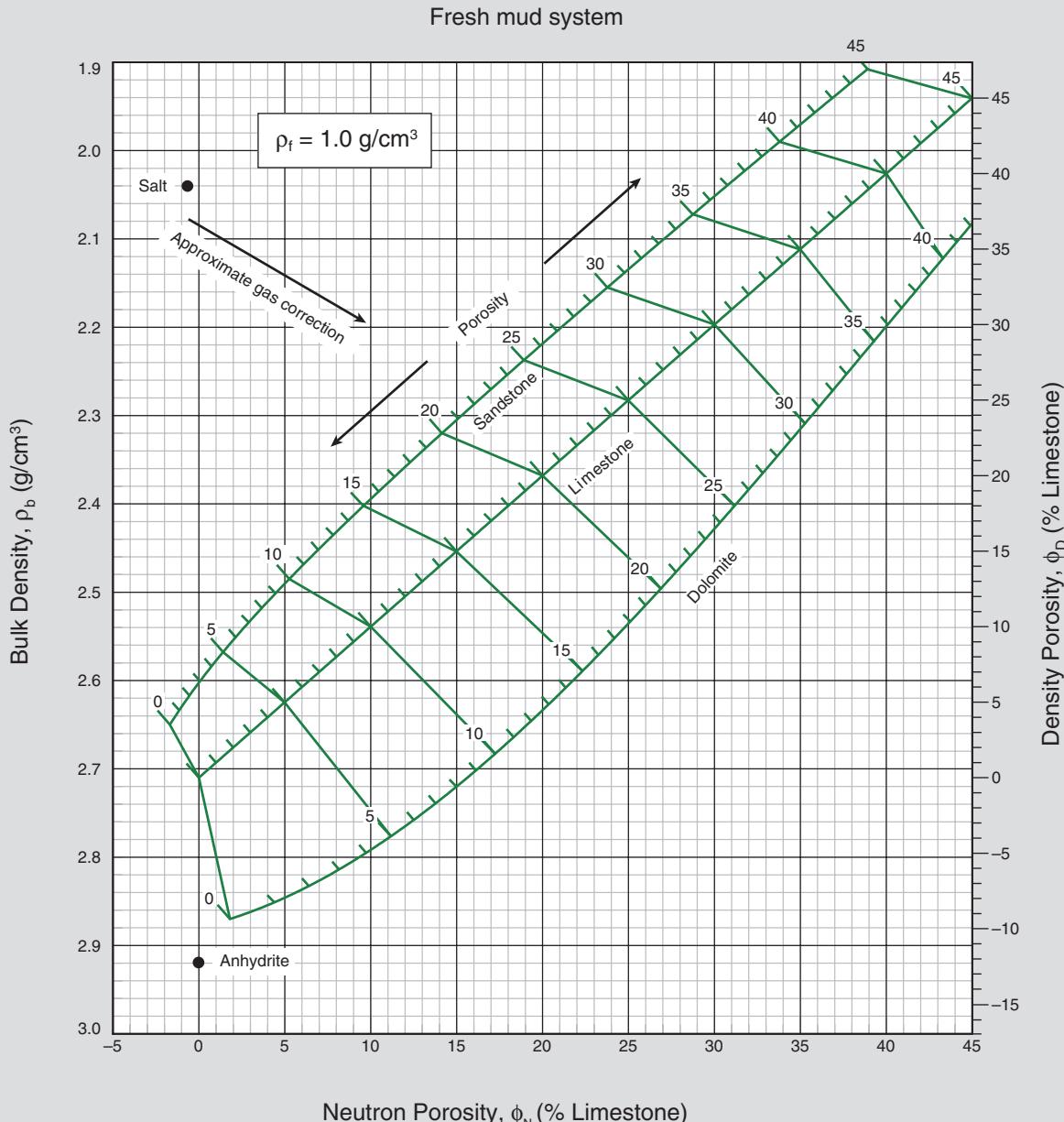
Compensated Neutron Borehole Size and Salinity Correction



Compensated Neutron Borehole Size and Salinity Correction



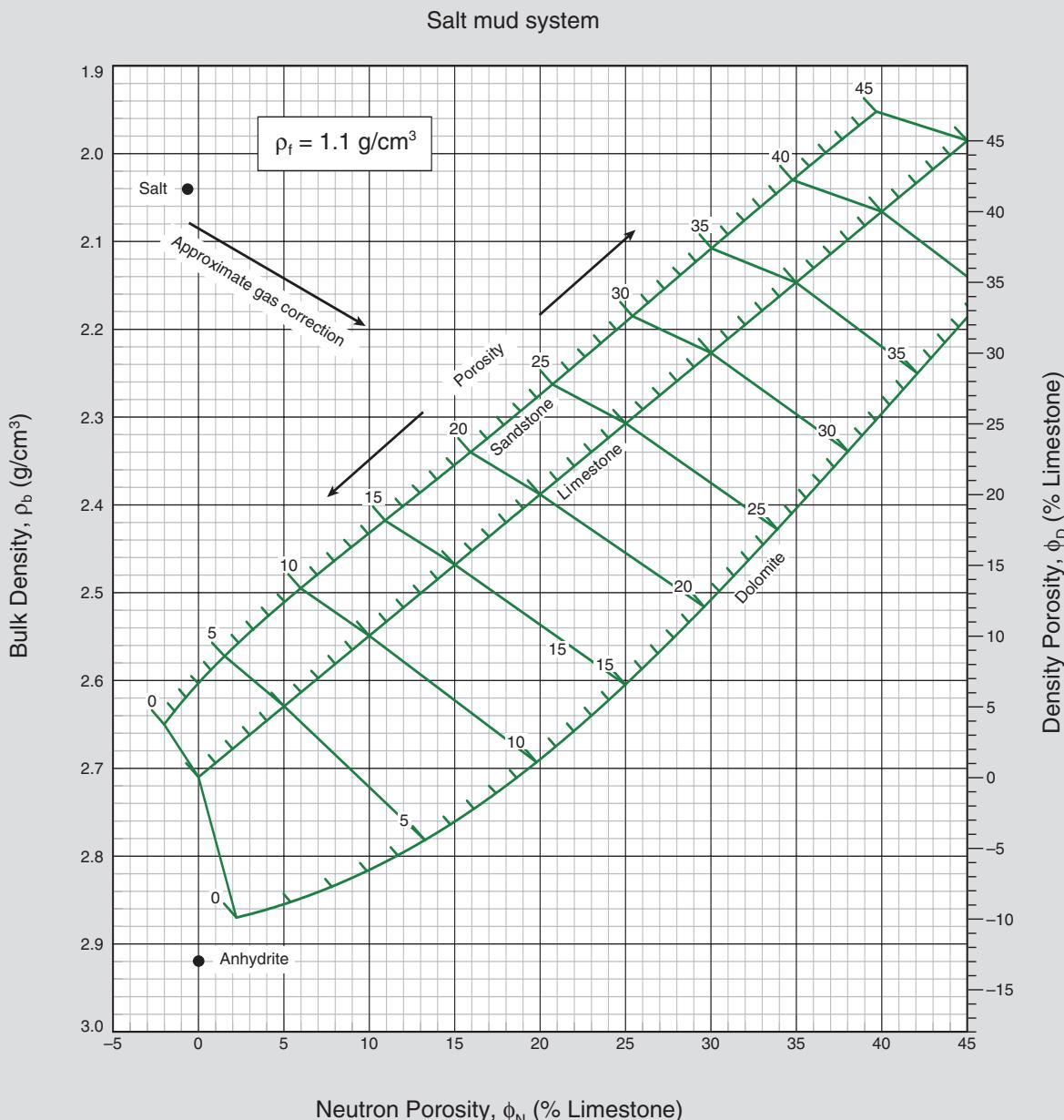
Porosity and Lithology from Compensated Neutron and Spectral P_e Density (SPeD) Log



6-26

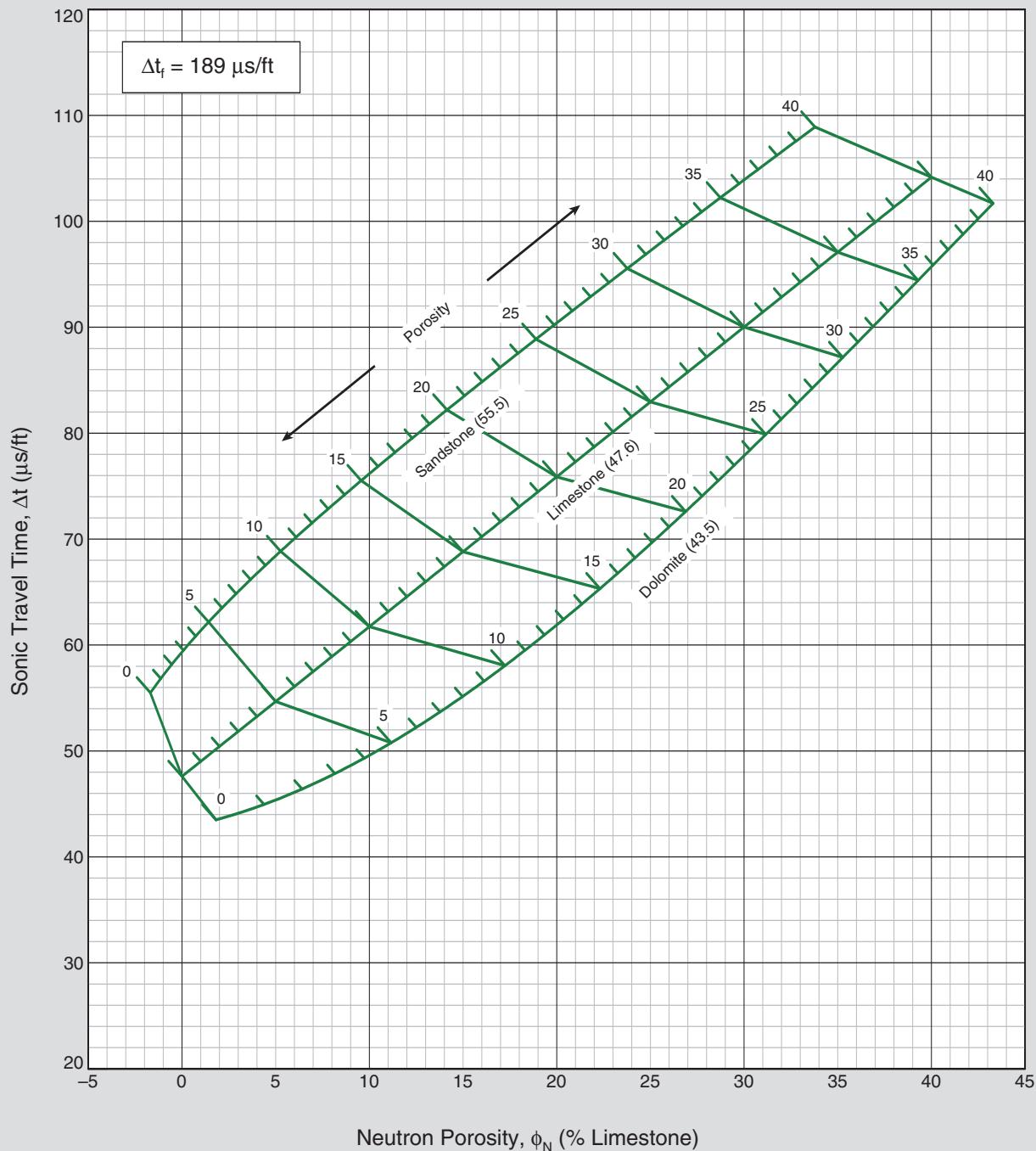
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Porosity and Lithology from Compensated Neutron and Spectral P_e Density (SPeD) Log



Porosity and Lithology from Compensated Neutron and Sonic Log

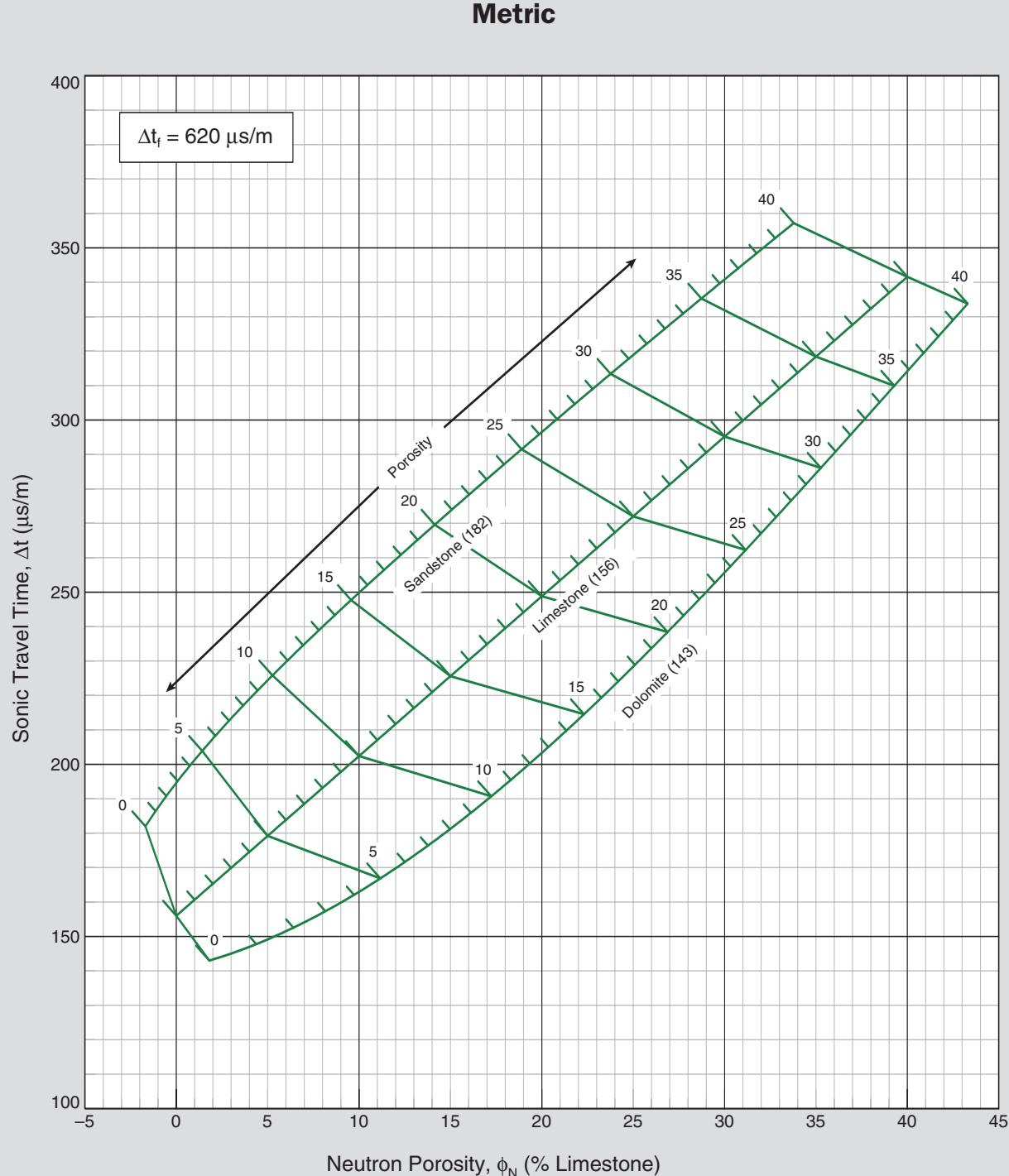
English



6-28

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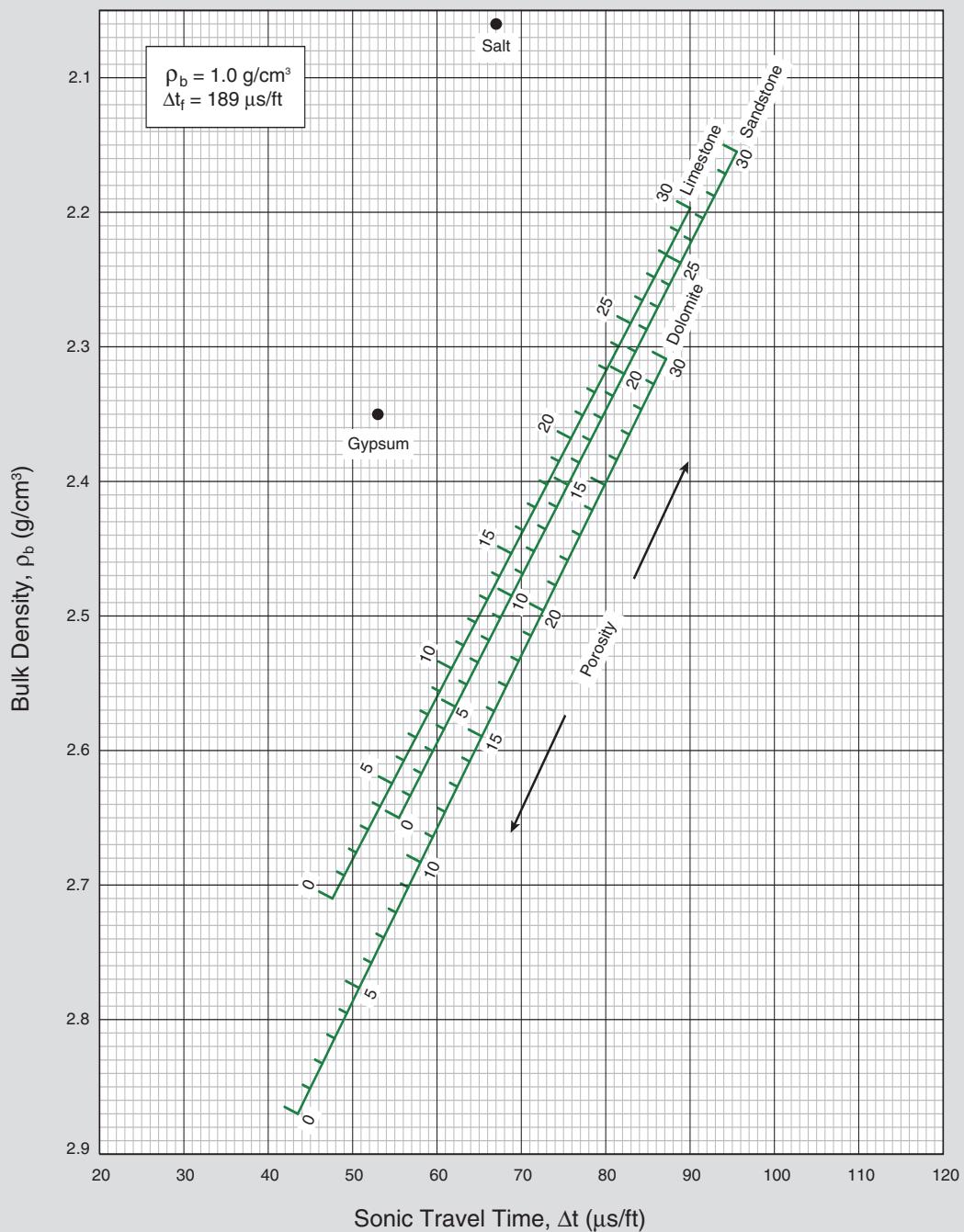
Porosity and Lithology from Compensated Neutron and Sonic Log



Porosity and Lithology from Sonic and Spectral P_e Density (SPeD) Log

English

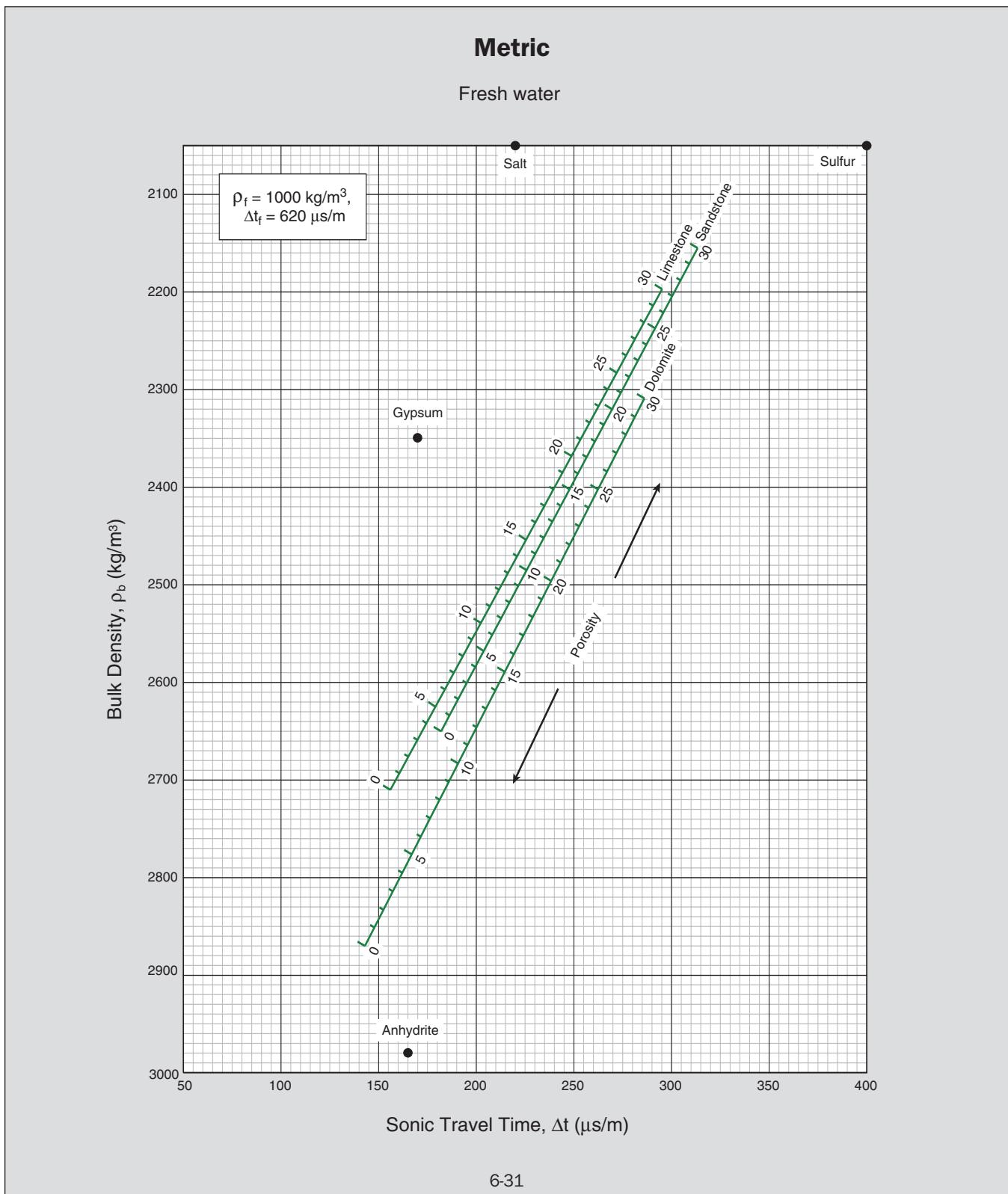
Fresh water



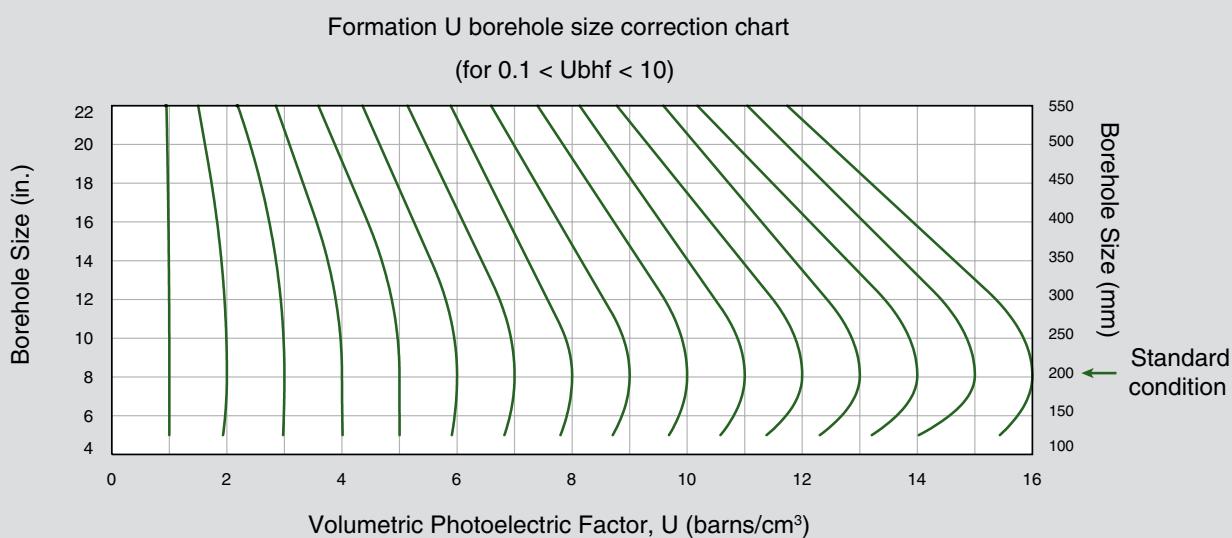
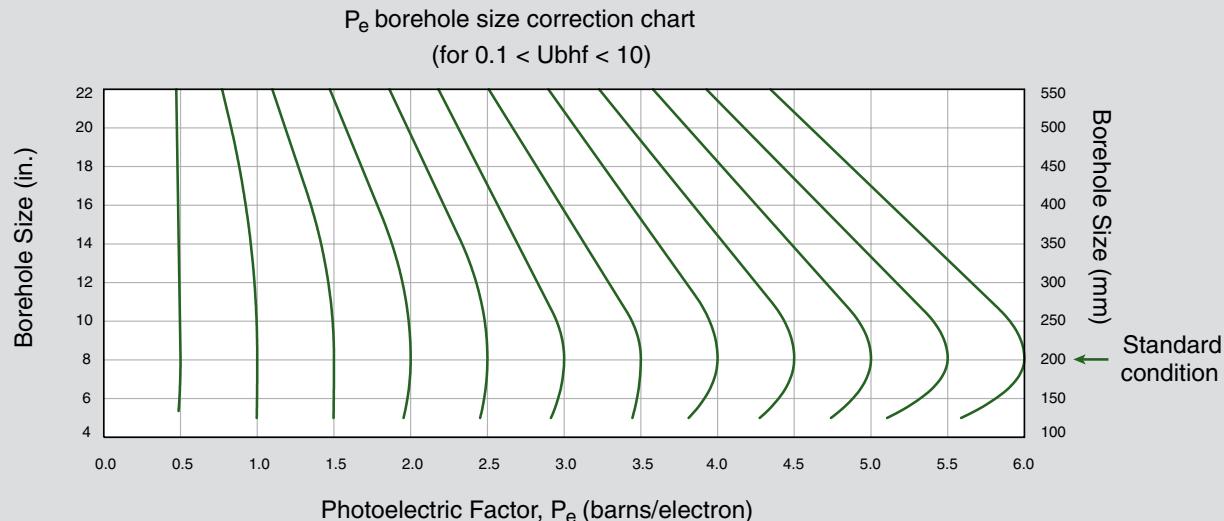
6-30

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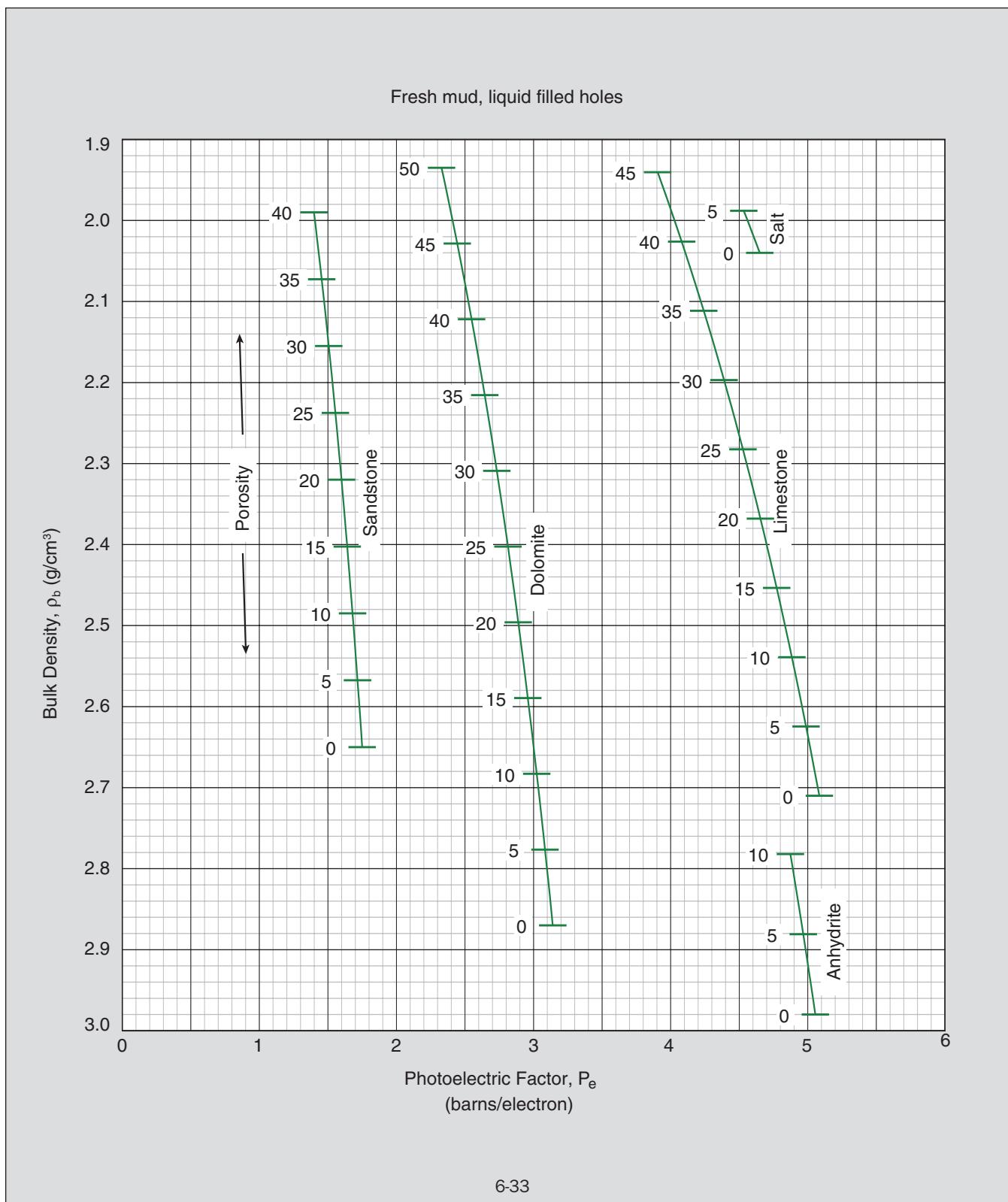
Porosity and Lithology from Sonic and Spectral P_e Density (SPeD) Log



Spectral P_e Density (SPeD) Photoelectric Correction for Borehole Size



Porosity and Lithology from Spectral P_e Density (SPeD) Log



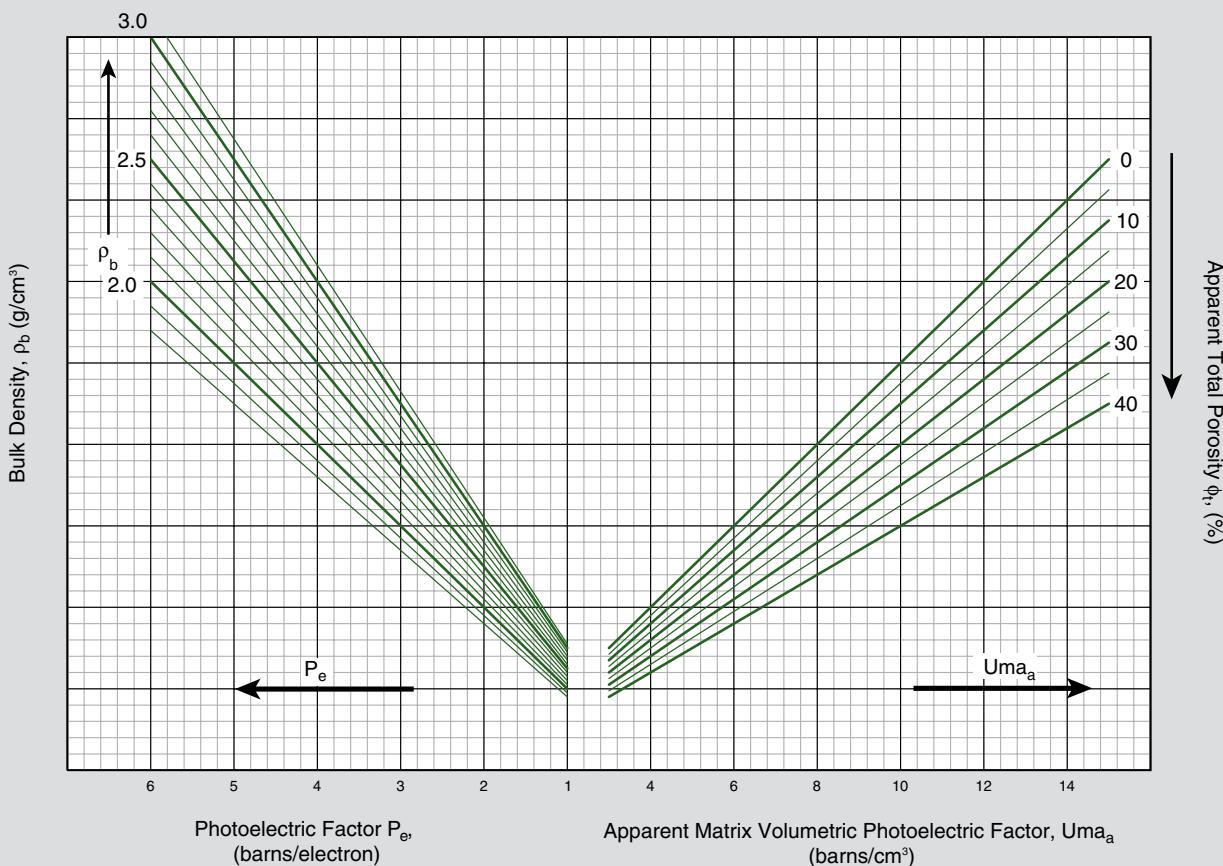
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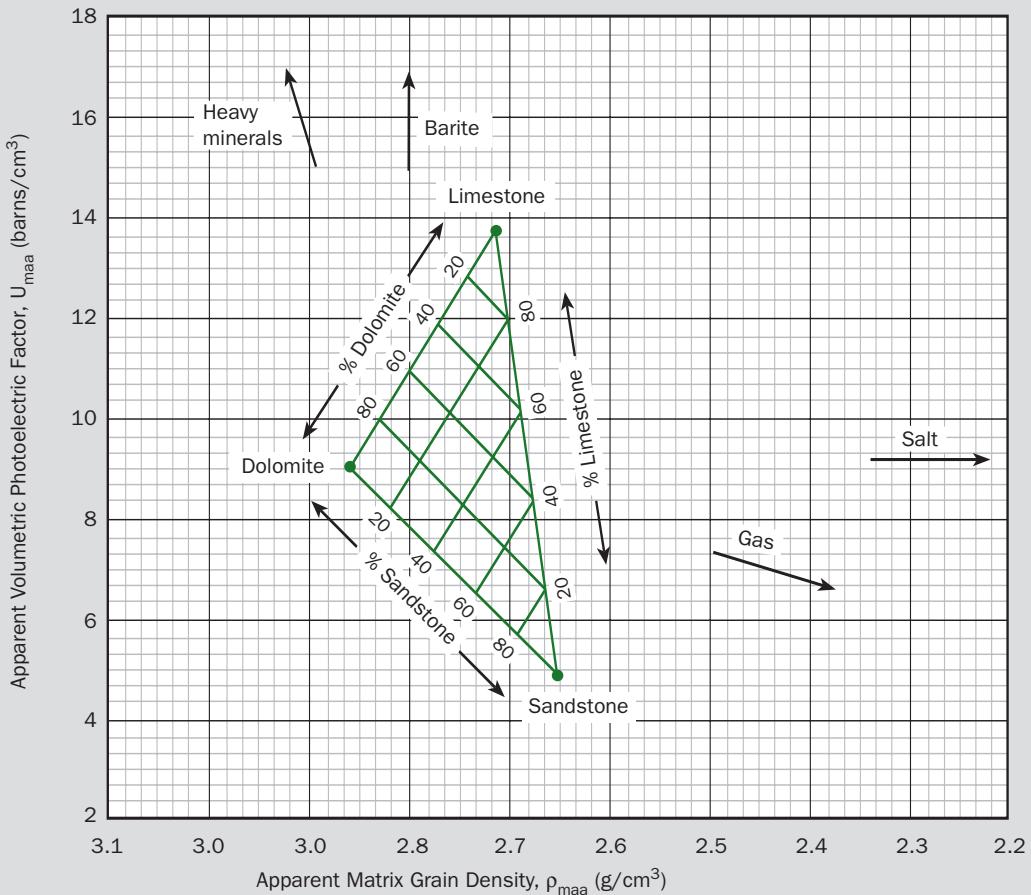
Apparent Matrix Volumetric Photoelectric Factor Spectral P_e Density (SPeD) Log



6-34

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Matrix Identification Plot



$$U_{maa} = \frac{(\rho_{elog} \times \rho_{log}) - (\phi \times U_f)}{1 - \phi}$$

$$\rho_{maa} = \frac{\rho_{log} - \phi \rho_f}{1 - \phi}$$

Where, ϕ = formation porosity

$$\rho_f = 1.0 \text{ g/cm}^3 \text{ (fresh water)} \\ = 1.1 \text{ g/cm}^3 \text{ (salt water)}$$

$$U_f = 0.398 \text{ barns/cm}^3 \text{ (fresh water)} \\ = 1.36 \text{ barns/cm}^3 \text{ (salt water)}$$

The Matrix Identification Plot can be used to determine the component matrix lithology using the apparent matrix grain density and the apparent matrix volumetric photoelectric factor.

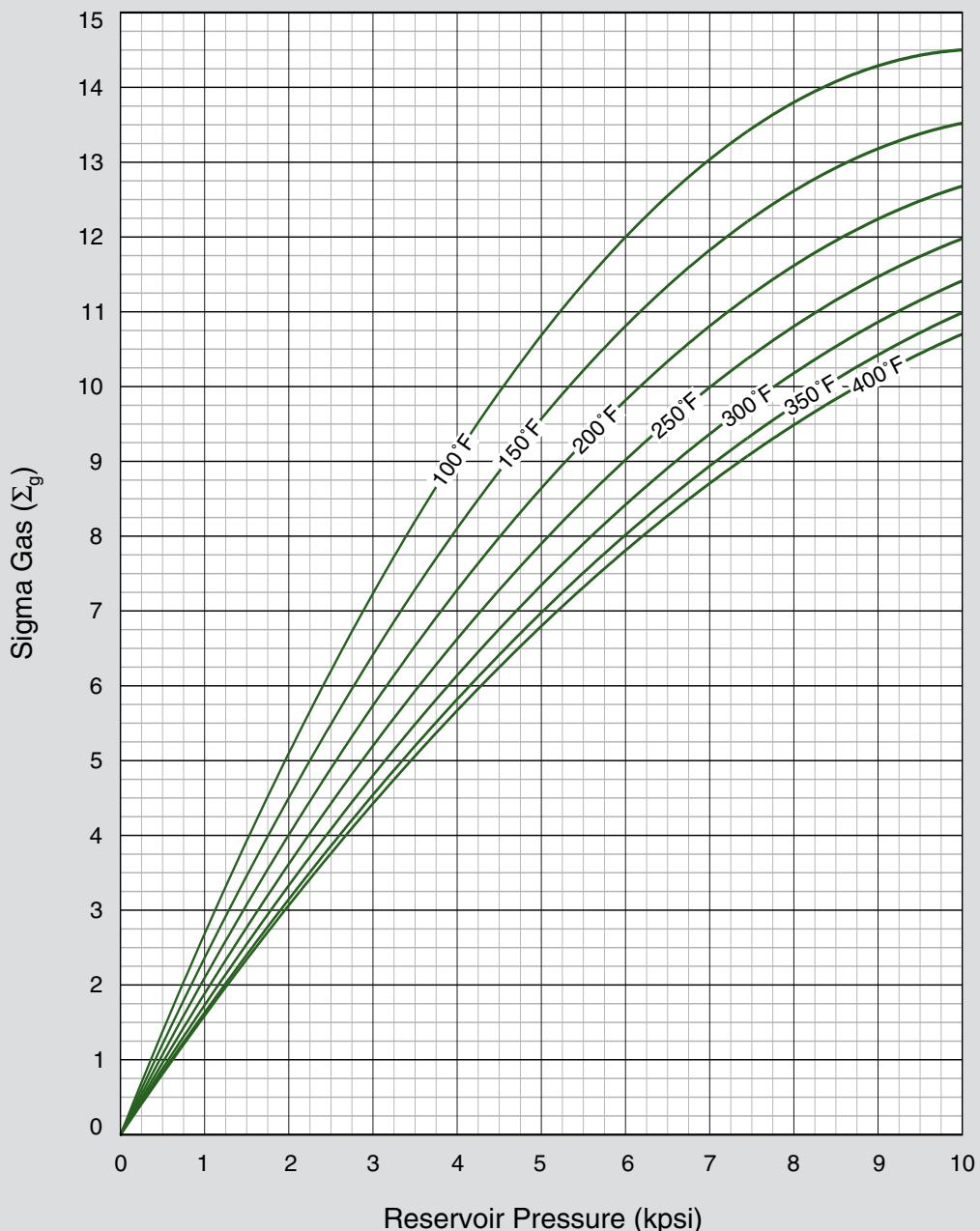


Section 7

Pulsed Neutron

Determination of Sigma Gas

English



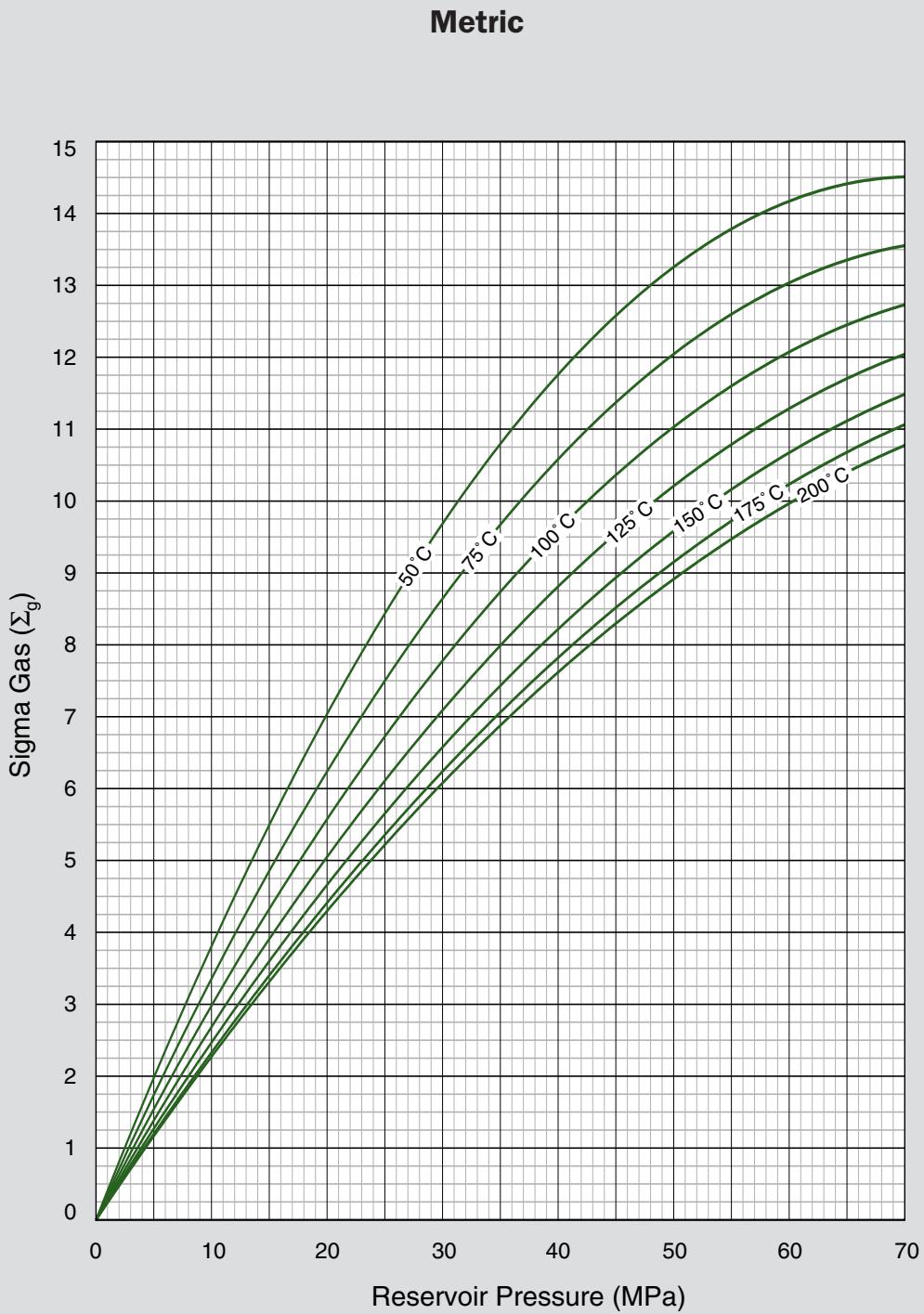
7-1

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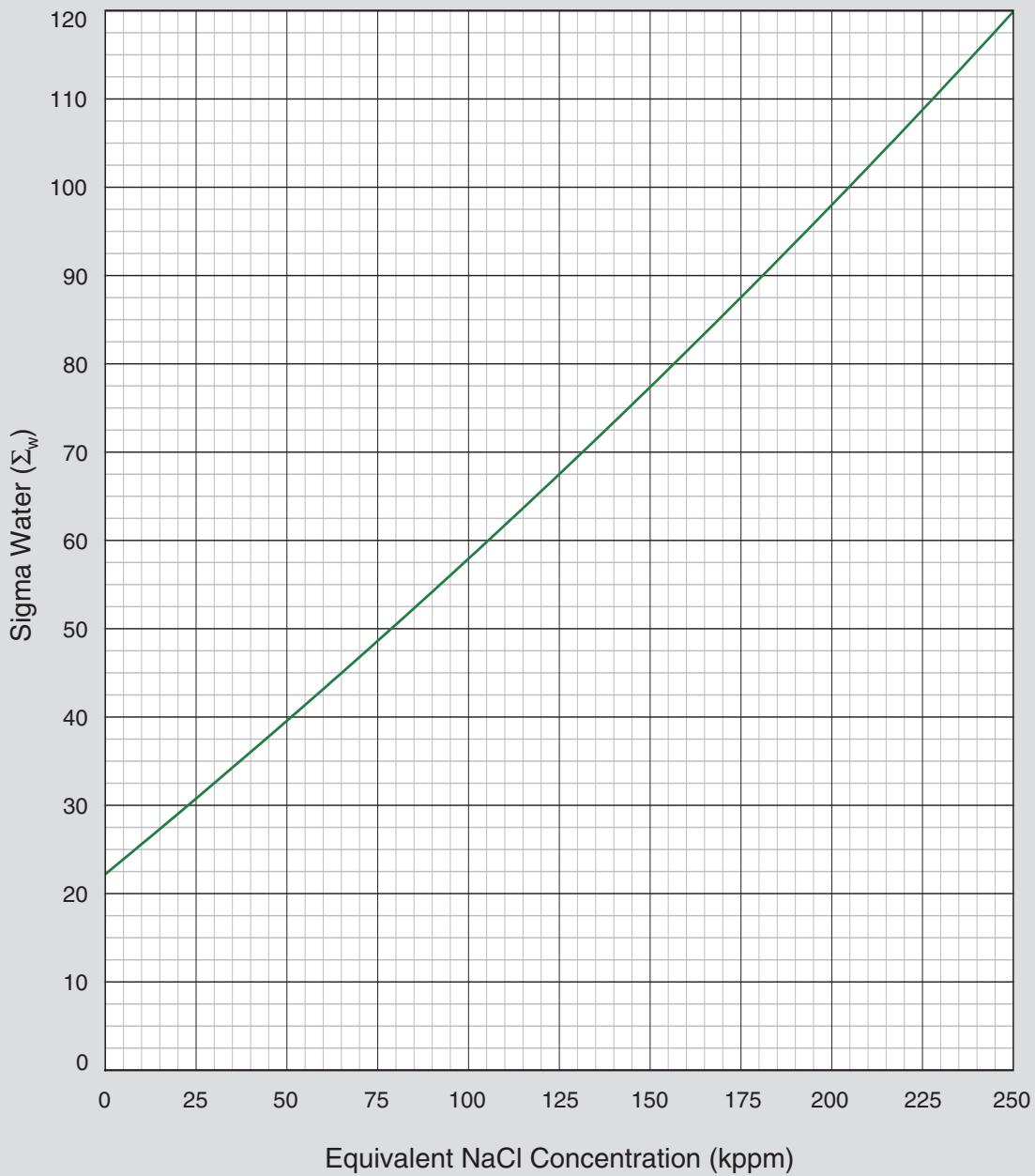


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Determination of Sigma Gas



Determination of Sigma Water



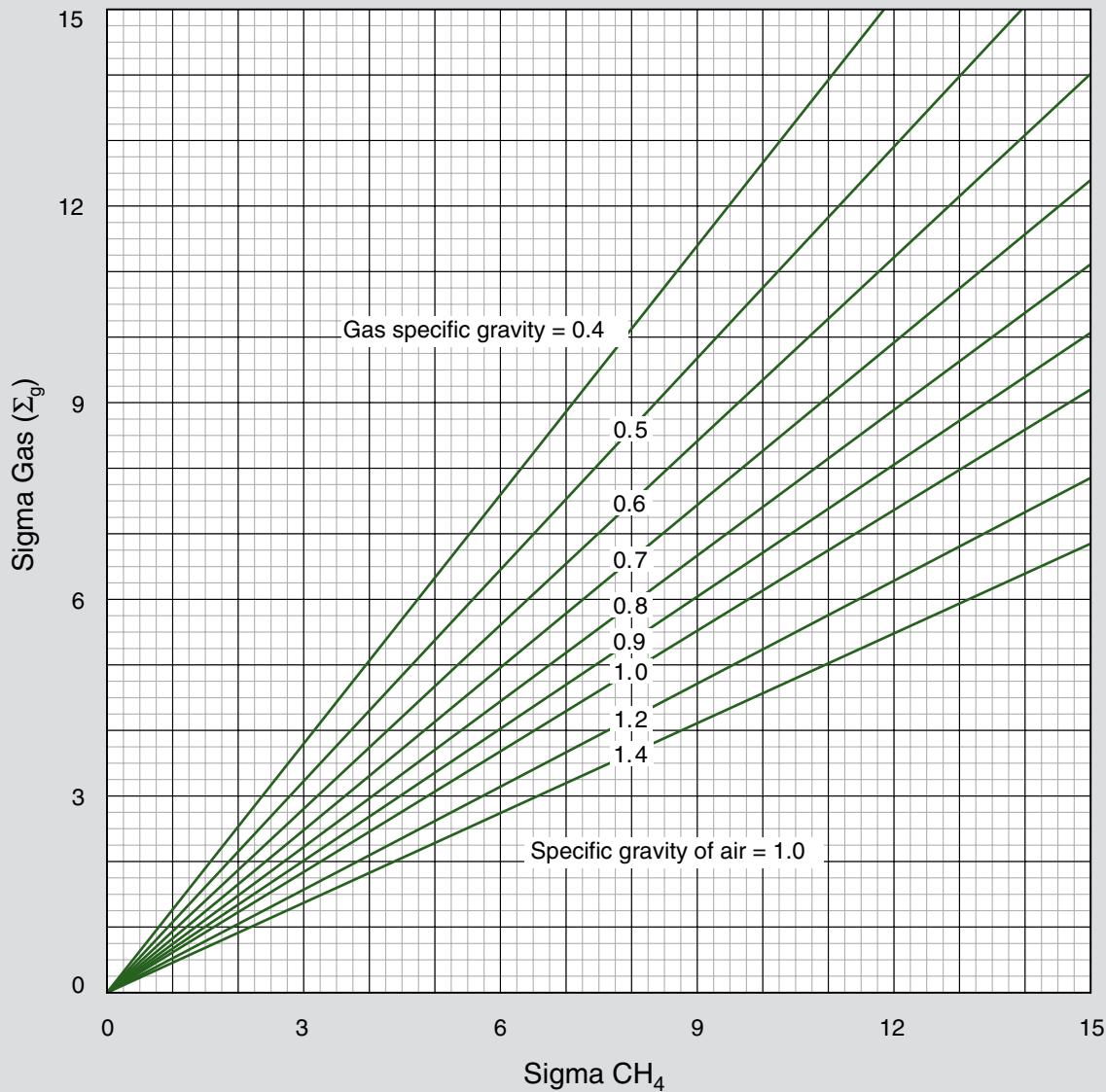
7-3

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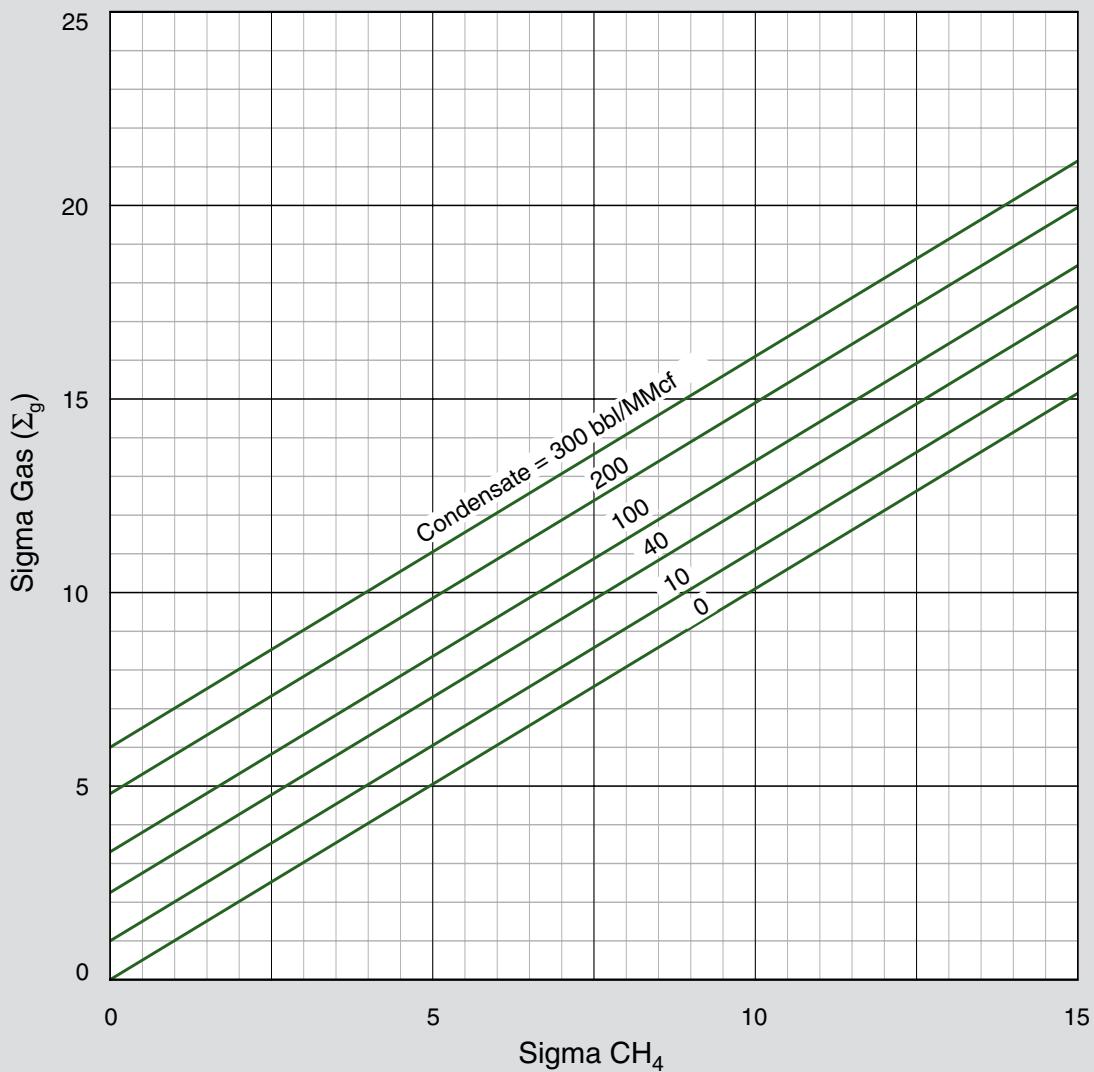


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Neutron Capture Cross Section of Wet Gas



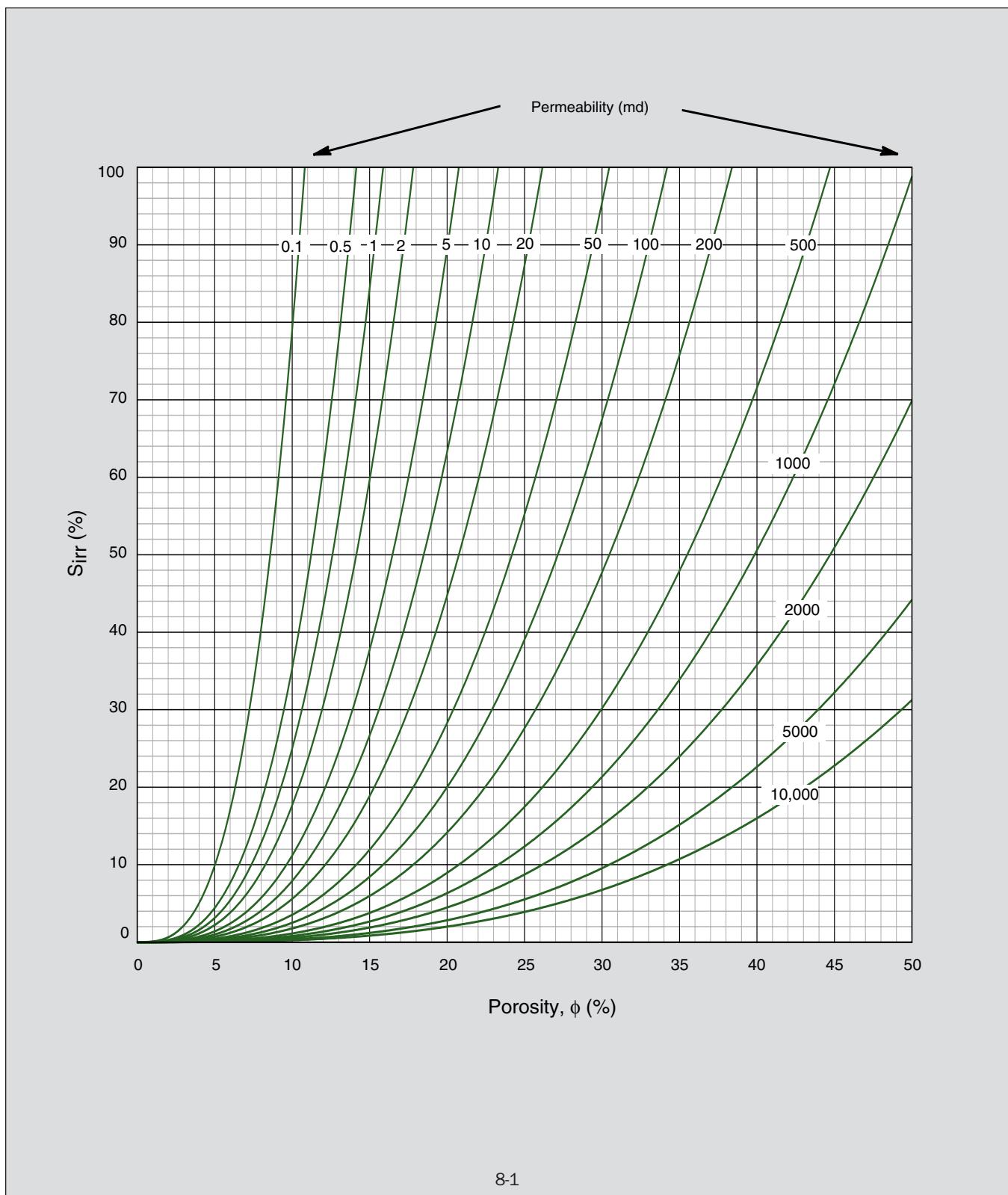
Correction of Sigma Gas for Condensate Content



Section 8

Miscellaneous

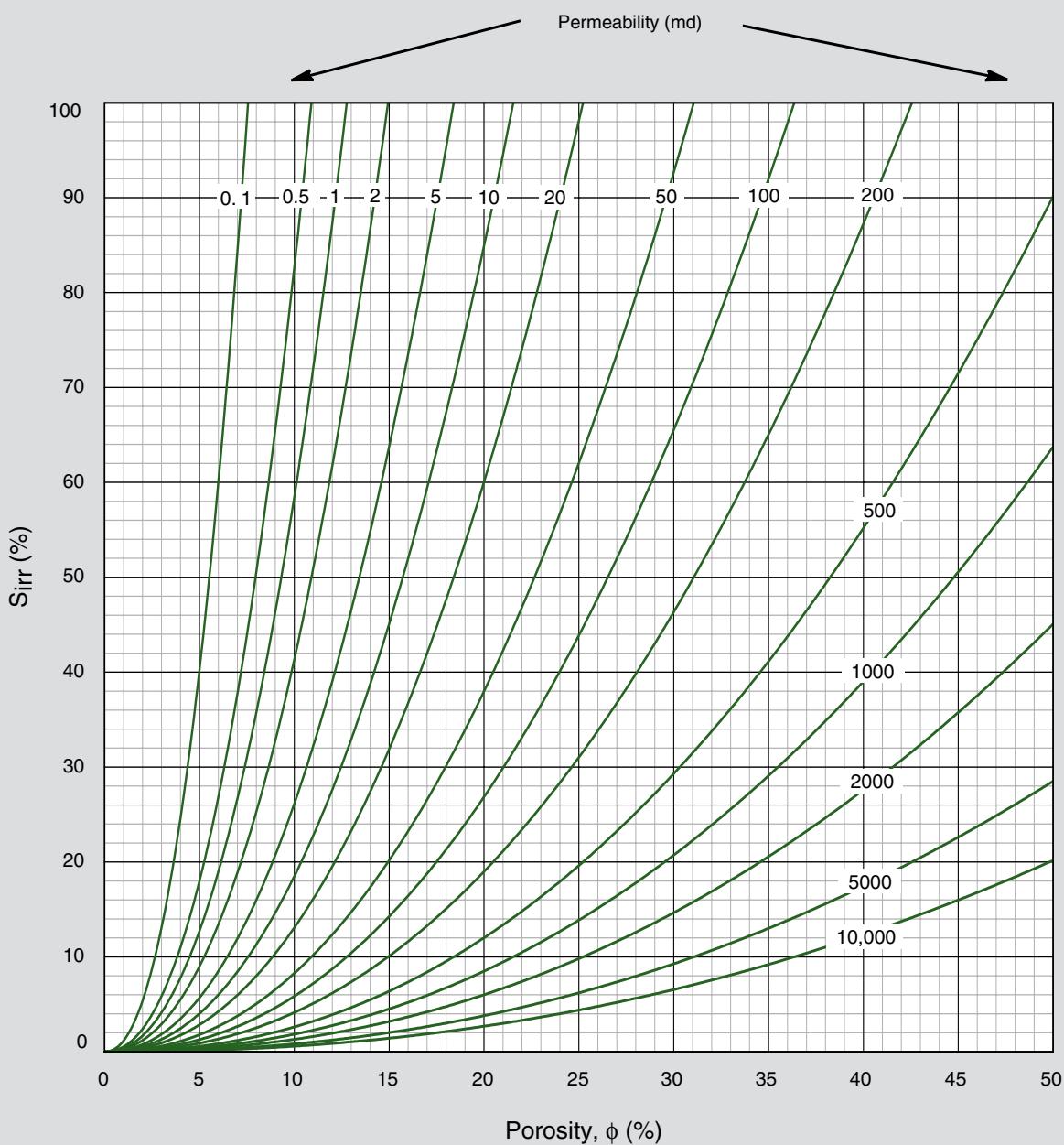
Reservoir Permeability Estimate from Log Data – Morris and Biggs Equation



8-1

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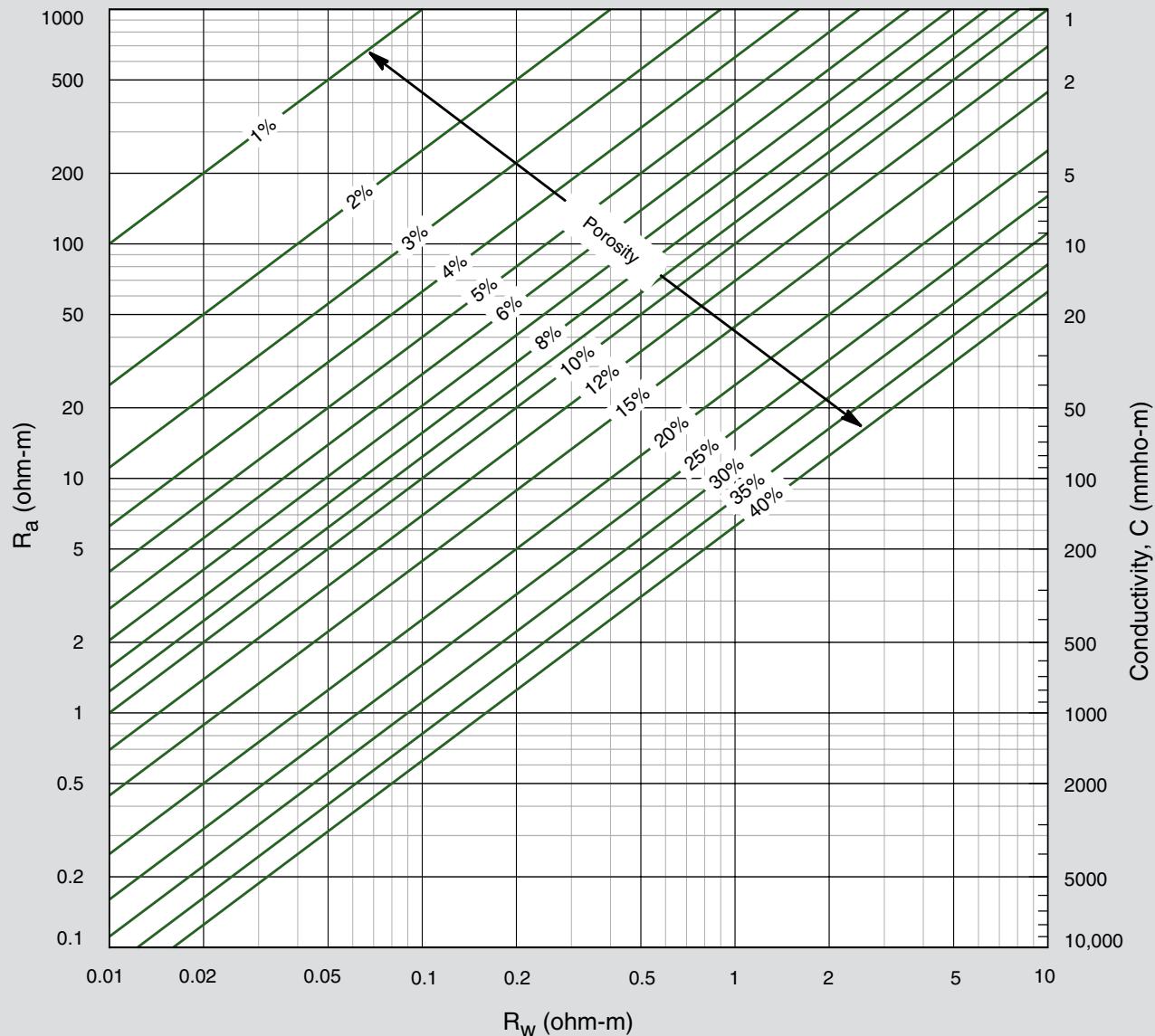
Reservoir Permeability Estimate from Log Data – Timur Equation



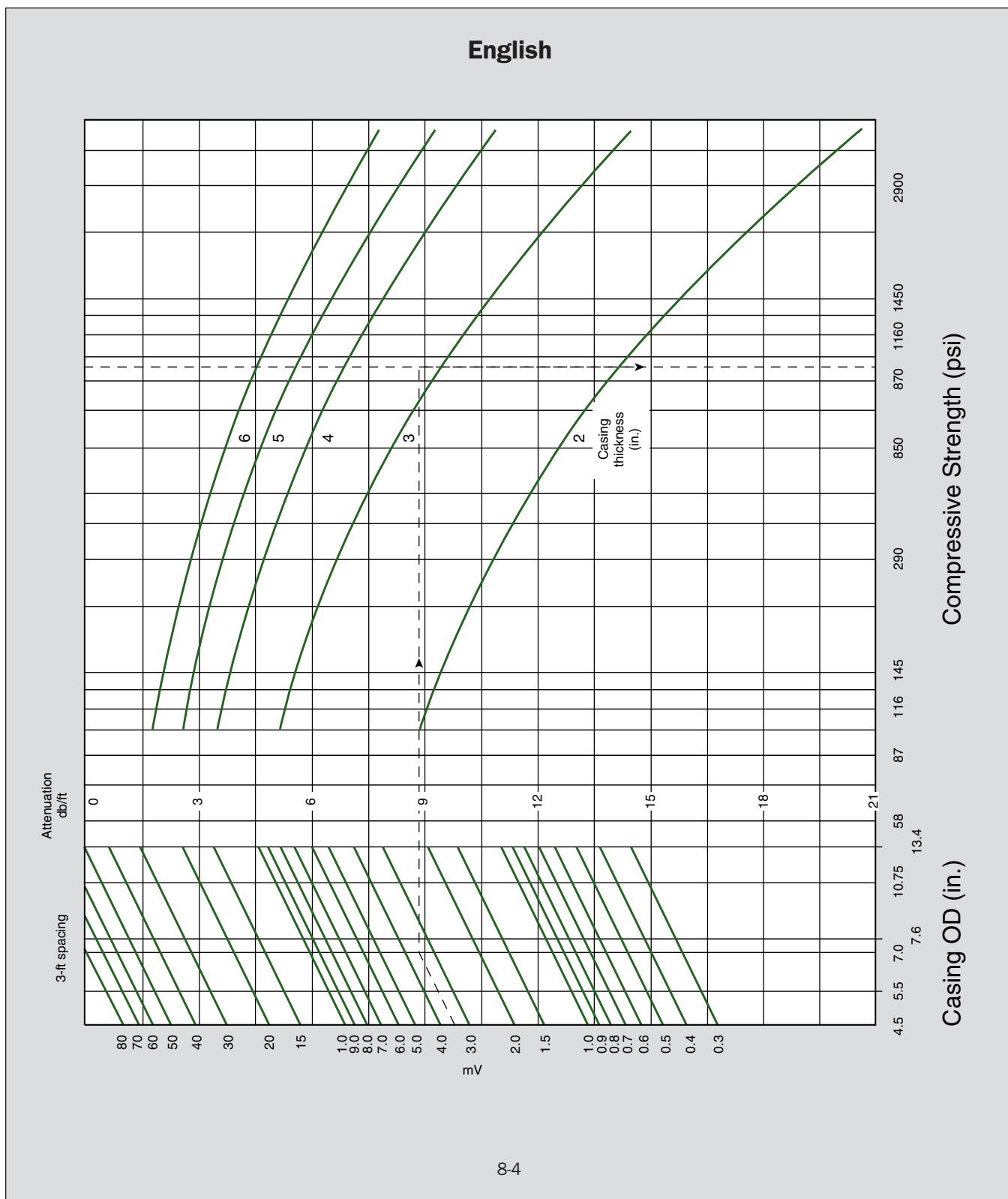
8-2

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Conductivity-Derived-Water-Filled-Porosity

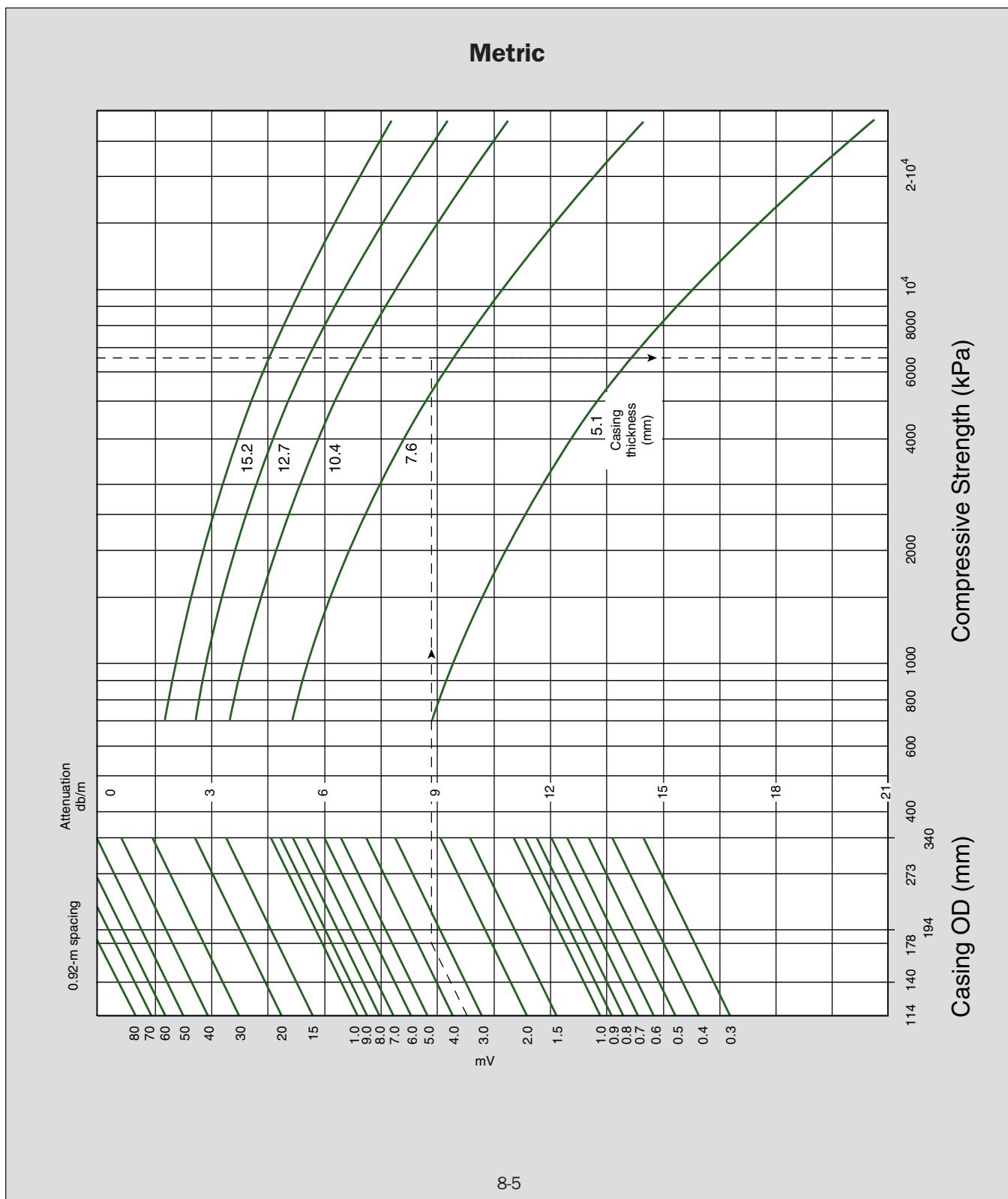


Cement Bond Log Interpretation Chart



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Cement Bond Log Interpretation Chart



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Formation Strength Parameter Equations Used in Well Logging Terms

Log-derived values of density, shear travel time and compressional travel time can be mathematically related to Young's modulus, Bulk modulus, Shear modulus and Poisson's ratio.

Definition of Elastic Constants

Elastic constants	Elastic constants	Interrelation of equations	Equations in well logging terms
Young's modulus ⁽¹⁾	$E = \frac{9K \rho v_s^2}{3K + \rho v_s^2}$	$E = \frac{9K \mu}{3K + \mu} = 2\mu(1 + \sigma) = 3K(1 - 2\sigma)$	$E = \left(\frac{\rho}{\Delta t_s^2}\right) \left(\frac{3\Delta t_s^2 - 4\Delta t_c^2}{\Delta t_s^2 - \Delta t_c^2}\right) \times 1.34 \times 10^{10}$
Bulk modulus ⁽²⁾	$K = \rho v_c^2 - 4/3v_s^2$	$K = \frac{E\mu}{3(3\mu - E)} = \mu \frac{2(1 + \sigma)}{3(1 - 2\sigma)} = \frac{E}{3(1 - 2\sigma)}$	$K = \rho \left(\frac{3\Delta t_s^2 - 4\Delta t_c^2}{3\Delta t_s^2 \Delta t_c^2}\right) \times 1.34 \times 10^{10}$
Shear modulus ⁽³⁾	$\mu = \rho v_s^2$	$\mu = \frac{3KE}{9K \times E} = 3K \frac{1 - 2\sigma}{2 + 2\sigma} = \frac{E}{2 + 2\sigma}$	$\mu = \frac{\rho}{\Delta t_s^2} \times 1.34 \times 10^{10}$
Poisson's ratio ⁽⁴⁾	$\sigma = 1/2 \frac{\left(\frac{v_c^2}{v_s^2}\right) - 2}{\left(\frac{v_c^2}{v_s^2}\right) - 1}$	$\sigma = \frac{3K - 2\mu}{2(3K + \mu)} = \left(\frac{E}{2\mu} - 1\right) = \frac{3K - E}{6K}$	$\sigma = 1/2 \left(\frac{\Delta t_s^2 - 2\Delta t_c^2}{\Delta t_s^2 - \Delta t_c^2}\right)$

ρ = bulk density, g/cm³

v_c = compressional velocity, ft/s

v_s = shear velocity, ft/s

Δt_c = compressional travel time, $\mu\text{s}/\text{ft}$

Δt_s = shear travel time, $\mu\text{s}/\text{ft}$

1.34×10^{10} = conversion factor

(1) Young's modulus (E) measures opposition of a substance to extensional stress, $E = \frac{F/A}{\Delta l/l}$

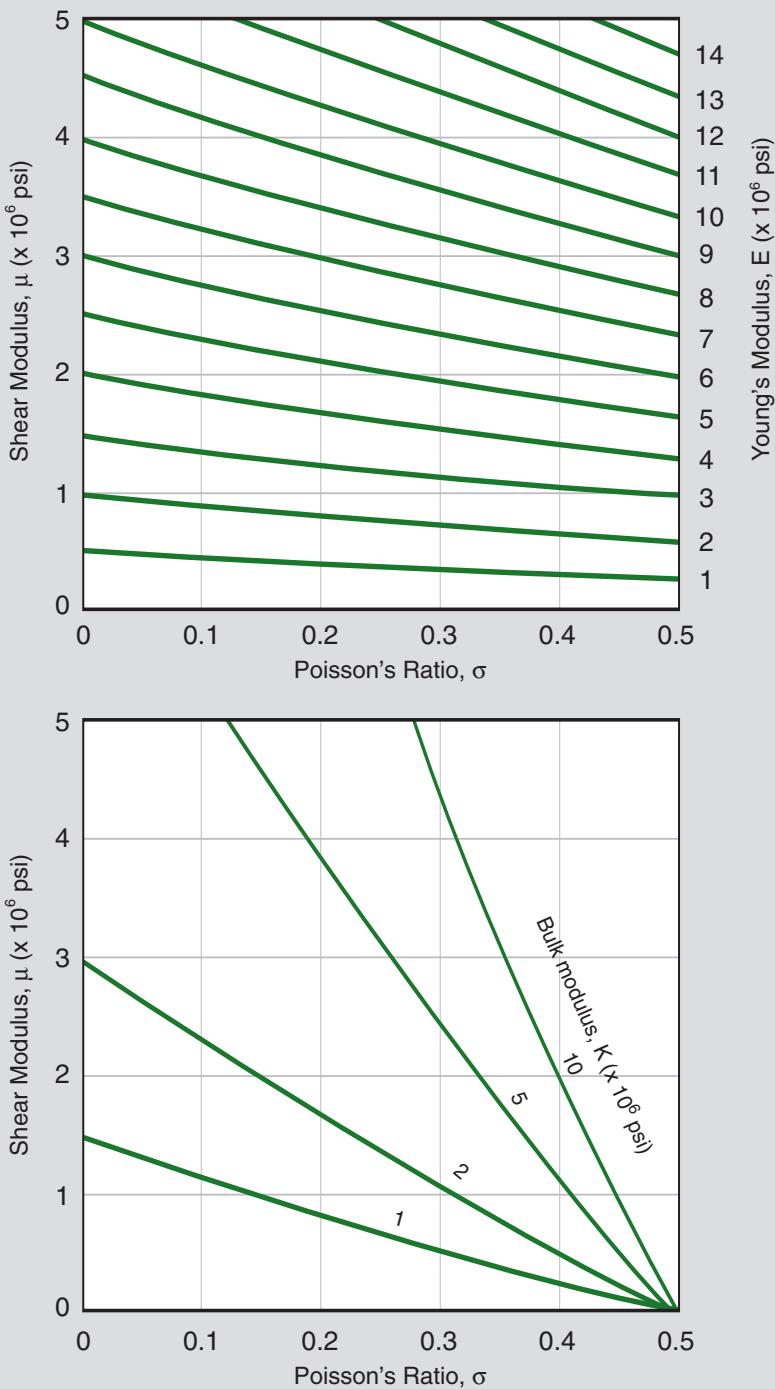
(2) Bulk modulus (K) is the coefficient of incompressibility and measures opposition of substance to compressional stress, $K = \frac{F/A}{\Delta V/V}$

(3) Shear modulus (μ), also called rigidity modulus, measures the opposition of a substance to shear stresses.

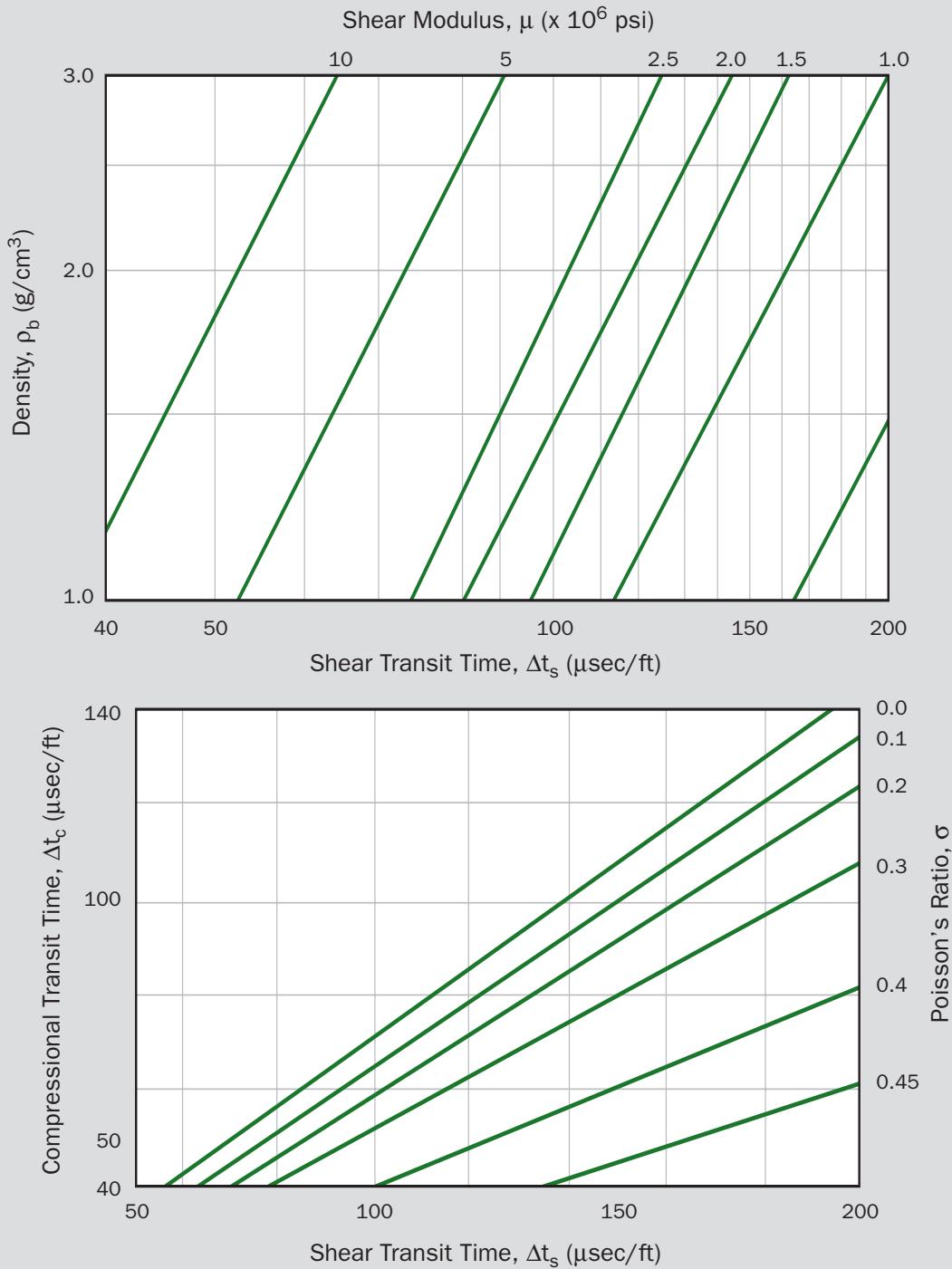
Finite values for solids, zero values for fluid, $\mu = \frac{F/A}{\tan S}$

(4) Poisson's ratio (σ) is the ratio of relative decrease in diameter to relative elongation, $\sigma = \frac{\Delta d/d}{\Delta l/l}$

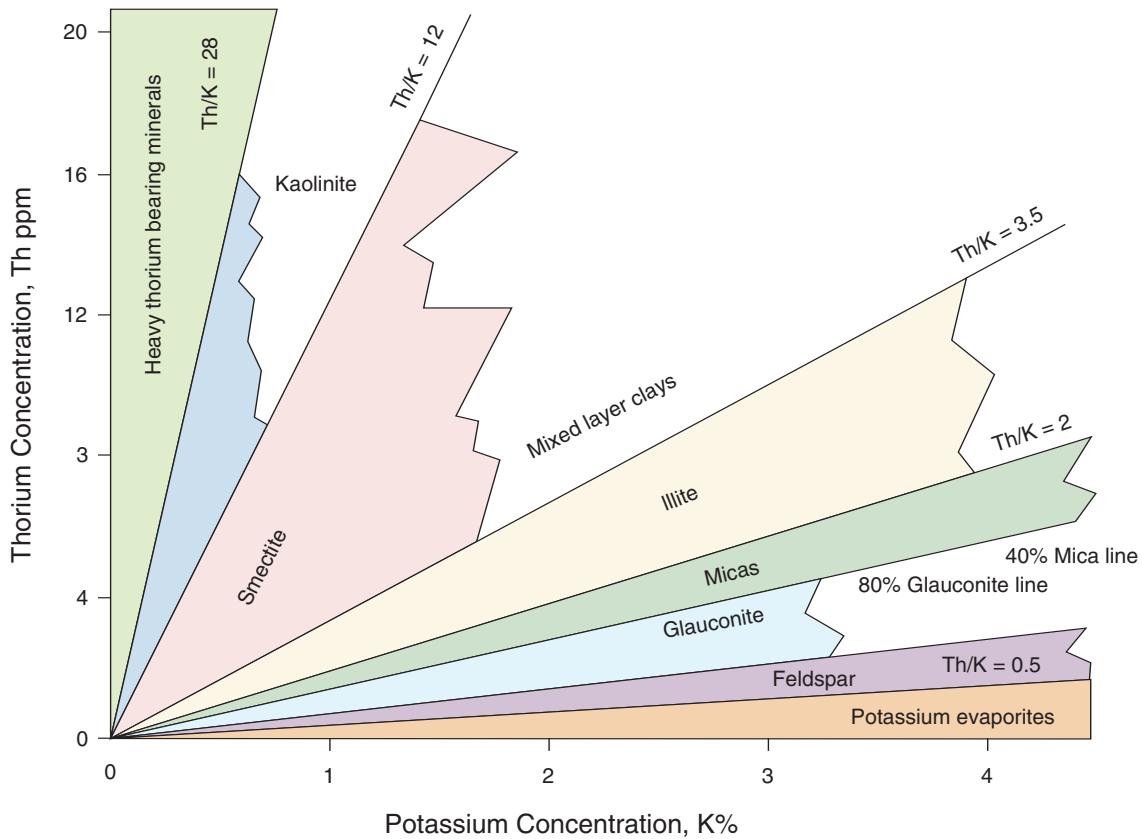
Formation Strength Parameters



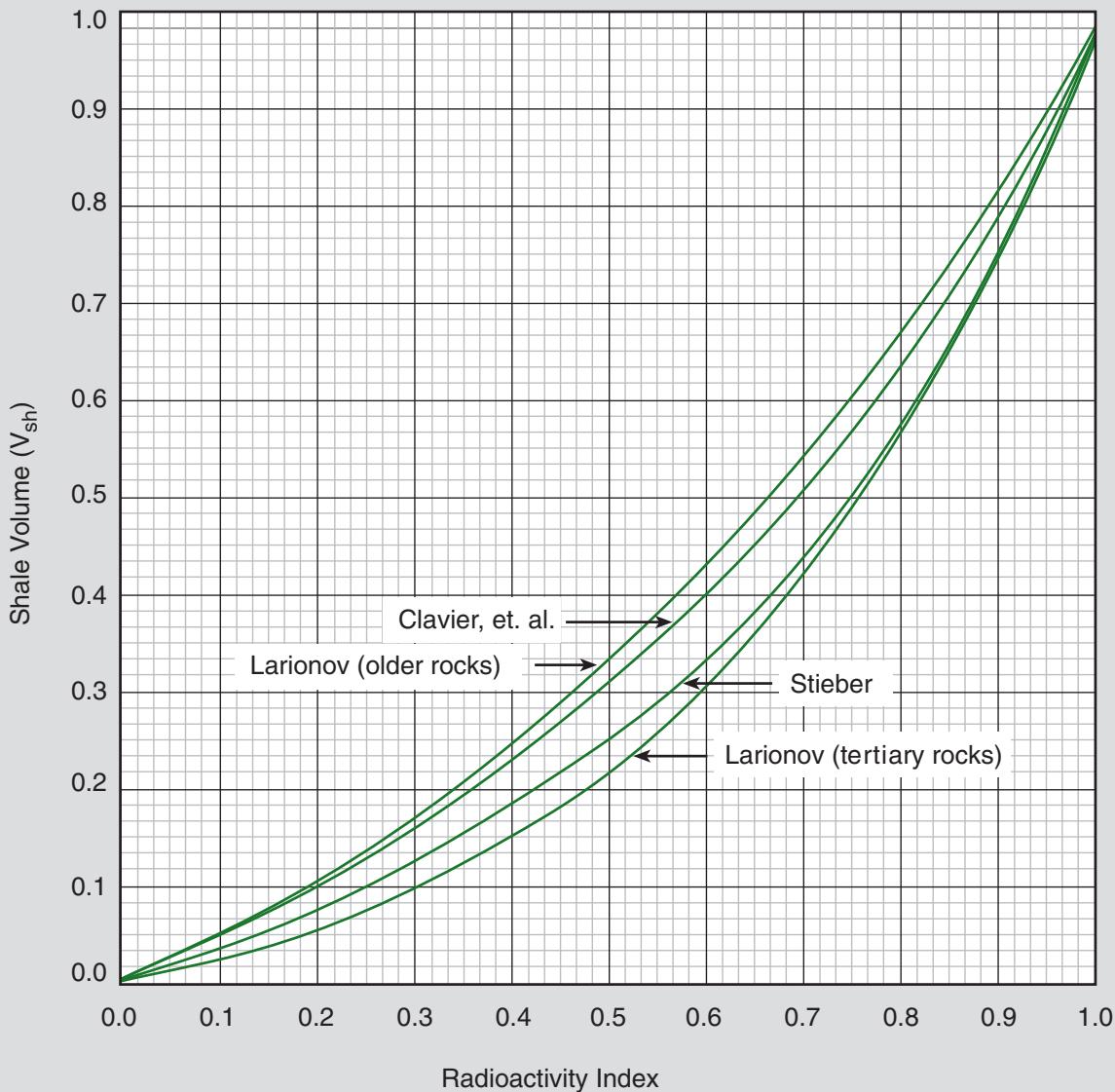
Formation Strength Parameters



Mineral Identification from Spectral Gamma Ray



Shale Volume from Radioactivity Index



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Tool Mnemonics

Mnemonic	Mnemonic Description	Tool	Tool Description
DT	Compressional Delta Time	BCS	Borehole Comp Sonic
DTL	Delta Time Lower	BCS	Borehole Comp Sonic
DTQ	Delta Time Quality	BCS	Borehole Comp Sonic
DTU	Delta Time Upper	BCS	Borehole Comp Sonic
ITT	Integrated TRL Time	BCS	Borehole Comp Sonic
RCDP	RH Cmpr DOL Phi	BCS	Borehole Comp Sonic
RCLP	RH Cmpr LS Phi	BCS	Borehole Comp Sonic
RCSP	RH Cmpr SS Phi	BCS	Borehole Comp Sonic
RPUR	BCS USER RH Porosity	BCS	Borehole Comp Sonic
SA1	Amplitude T1	BCS	Borehole Comp Sonic
SA2	Amplitude T2	BCS	Borehole Comp Sonic
SA3	Amplitude T3	BCS	Borehole Comp Sonic
SA4	Amplitude T4	BCS	Borehole Comp Sonic
SPDL	BCS Porosity (DL)	BCS	Borehole Comp Sonic
SPHI	BCS Porosity (LS)	BCS	Borehole Comp Sonic
SPSS	BCS Porosity (SS)	BCS	Borehole Comp Sonic
TT1	Travel Time T1	BCS	Borehole Comp Sonic
TT2	Travel Time T2	BCS	Borehole Comp Sonic
TT3	Travel Time T3	BCS	Borehole Comp Sonic
TT4	Travel Time T4	BCS	Borehole Comp Sonic
UPHS	BCS USER Porosity	BCS	Borehole Comp Sonic
XY 1	XY Signature T1	BCS	Borehole Comp Sonic
XY 2	XY Signature T2	BCS	Borehole Comp Sonic
XY 3	XY Signature T3	BCS	Borehole Comp Sonic
XY 4	XY Signature T4	BCS	Borehole Comp Sonic
ABHC	Annular Volume Tick	BHV	Borehole Volume Analysis
ABHT	Annular Volume Tab	BHV	Borehole Volume Analysis
ABHV	Annular Volume	BHV	Borehole Volume Analysis
BHV	Total Borehole Volume	BHV	Borehole Volume Analysis
BHVC	Borehole Volume Tick	BHV	Borehole Volume Analysis
BHVT	Borehole Volume Tabular	BHV	Borehole Volume Analysis
DCAL	Differential Caliper	BHV	Borehole Volume Analysis
NOMI	Nominal ID	CAI	Casing Analysis Instrument
NOMO	Nominal OD	CAI	Casing Analysis Instrument
NOMW	Nominal Wall	CAI	Casing Analysis Instrument
MINR	Min Remaining Wall	CAI	Casing Analysis Instrument
MAXR	Max Remaining Wall	CAI	Casing Analysis Instrument
DIFR	Wall Difference	CAI	Casing Analysis Instrument
PERR	% Remaining Wall	CAI	Casing Analysis Instrument
MNWT	Min Wall Thickness	CAI	Casing Analysis Instrument



Tool Mnemonics

Mnemonic	Mnemonic Description	Tool	Tool Description
MXWT	Max Wall Thickness	CAI	Casing Analysis Instrument
DFWT	Wall Thickness Differential	CAI	Casing Analysis Instrument
PCWT	% Wall Thickness Remaining	CAI	Casing Analysis Instrument
APII	API Tolerance ID	CAI	Casing Analysis Instrument
APIW	API Tolerance Wall	CAI	Casing Analysis Instrument
TOLW	12.5% Tolerance Wall	CAI	Casing Analysis Instrument
TOLR	87.5% Wall Remaining	CAI	Casing Analysis Instrument
BPNO	Nom Burst Pressure	CAI	Casing Analysis Instrument
BPMX	Max Burst Pressure	CAI	Casing Analysis Instrument
BPMN	Min Burst Pressure	CAI	Casing Analysis Instrument
BPGU	Gulf Burst Pressure	CAI	Casing Analysis Instrument
CPNO	Nom Collapse Pressure	CAI	Casing Analysis Instrument
CPMX	Max Collapse Pressure	CAI	Casing Analysis Instrument
CPMN	Min Collapse Pressure	CAI	Casing Analysis Instrument
PIPD	Pipe Defect	CAI	Casing Analysis Instrument
CCLF	Collar	CAI	Casing Analysis Instrument
ODMN	Minimum OD	CAI	Casing Analysis Instrument
ODMX	Maximum OD	CAI	Casing Analysis Instrument
ODAV	Average OD	CAI	Casing Analysis Instrument
CAL3	Aux Caliper	CAL	Caliper
CAL1	X Caliper	CAL	X Caliper
CAL2	Y Caliper	CAL	Y Caliper
DT	Compressional Delta Time	CBL	Cement Bond
TT3F	Travel Time 3 ft	CBL	Cement Bond
TT5F	Travel Time 5 ft	CBL	Cement Bond
VDL1	Variable Density 3 ft	CBL	Cement Bond
VDL2	Variable Density 5 ft	CBL	Cement Bond
XY1	XY Signature 3 ft	CBL	Cement Bond
XY2	XY Signature 5 ft	CBL	Cement Bond
AM3F	Amplitude 3 ft	CBL	Cement Bond
AM5F	Amplitude 5 ft	CBL	Cement Bond
ATTN	Attenuation	CBL	Cement Bond
BI	Bond Index	CBL	Cement Bond
CS	Compressive Strength	CBL	Cement Bond
AM3F	Amplitude 3 ft	CBL	Single Receiver Cement Bond
ATTN	Attenuation	CBL	Single Receiver Cement Bond
BI	Bond Index	CBL	Single Receiver Cement Bond
CS	Compressive Strength	CBL	Single Receiver Cement Bond
TT3F	Travel Time 3 ft	CBL	Single Receiver Cement Bond
VDL1	Variable Density 3 ft	CBL	Single Receiver Cement Bond

Tool Mnemonics

Mnemonic	Mnemonic Description	Tool	Tool Description
XY1	XY Signature 3 ft	CBL	Single Receiver Cement Bond
CCL	Collar Locator	CCL	Casing Collar Locator (100)
SFB	Collar Locator	CCL	Multiple Gun Select Fire
SFG	Collar Locator	CCL	Select Fire Gun
CGN	Collar Locator	CCL	Shooting CCL
SWJ	Collar Locator	CCL	Swing Jet
DPDL	Density Porosity (DL)	CDT	Compensated Density
DPHI	Density Porosity (LS)	CDT	Compensated Density
DPSS	Density Porosity (SS)	CDT	Compensated Density
DRHO	Density Correction	CDT	Compensated Density
FFDC	Density Long Space	CDT	Compensated Density
NFDC	Density Short Space	CDT	Compensated Density
RHOB	Bulk Density	CDT	Compensated Density
AVGP	Avg Pad	CES	Casing Evaluation Survey
AVGT	Avg Thickness	CES	Casing Evaluation Survey
ERRB	CTSB Errors	CES	Casing Evaluation Survey
MAXP	Max Pad	CES	Casing Evaluation Survey
MAXT	Max Thickness	CES	Casing Evaluation Survey
MINP	Min Pad	CES	Casing Evaluation Survey
MINT	Min Thickness	CES	Casing Evaluation Survey
PD1	Pad #1	CES	Casing Evaluation Survey
PD2	Pad #2	CES	Casing Evaluation Survey
PD3	Pad #3	CES	Casing Evaluation Survey
PD4	Pad #4	CES	Casing Evaluation Survey
PD5	Pad #5	CES	Casing Evaluation Survey
PD6	Pad #6	CES	Casing Evaluation Survey
PD7	Pad #7	CES	Casing Evaluation Survey
PD8	Pad #8	CES	Casing Evaluation Survey
PD9	Pad #9	CES	Casing Evaluation Survey
PD10	Pad #10	CES	Casing Evaluation Survey
PD11	Pad #11	CES	Casing Evaluation Survey
PD12	Pad #12	CES	Casing Evaluation Survey
PD13	Pad #13	CES	Casing Evaluation Survey
PD14	Pad #14	CES	Casing Evaluation Survey
PD15	Pad #15	CES	Casing Evaluation Survey
PD16	Pad #16	CES	Casing Evaluation Survey
PR1	Raw pad #1 counts	CES	Casing Evaluation Survey
PR2	Raw pad #2 counts	CES	Casing Evaluation Survey
PR3	Raw pad #3 counts	CES	Casing Evaluation Survey
PR4	Raw pad #4 counts	CES	Casing Evaluation Survey

Tool Mnemonics

Mnemonic	Mnemonic Description	Tool	Tool Description
PR5	Raw pad #5 counts	CES	Casing Evaluation Survey
PR6	Raw pad #6 counts	CES	Casing Evaluation Survey
PR7	Raw pad #7 counts	CES	Casing Evaluation Survey
PR8	Raw pad #8 counts	CES	Casing Evaluation Survey
PR9	Raw pad #9 counts	CES	Casing Evaluation Survey
PR10	Raw pad #10 counts	CES	Casing Evaluation Survey
PR11	Raw pad #11 counts	CES	Casing Evaluation Survey
PR12	Raw pad #12 counts	CES	Casing Evaluation Survey
PR13	Raw pad #13 counts	CES	Casing Evaluation Survey
PR14	Raw pad #14 counts	CES	Casing Evaluation Survey
PR15	Raw pad #15 counts	CES	Casing Evaluation Survey
PR16	Raw pad #16 counts	CES	Casing Evaluation Survey
TRTX	Thickness Baseline	CES	Casing Evaluation Survey
FCNL	Neutron LS CPS	CNT	Compensated Neutron
NCNL	Neutron SS CPS	CNT	Compensated Neutron
NDBC	Neutron Porosity HS Cor.(DL)	CNT	Compensated Neutron
NLBC	Neutron Porosity HS Cor.(LS)	CNT	Compensated Neutron
NPDL	Neutron Porosity (DL)	CNT	Compensated Neutron
NPHI	Neutron Porosity (LS)	CNT	Compensated Neutron
NPSS	Neutron Porosity (SS)	CNT	Compensated Neutron
NRAT	Ratio	CNT	Compensated Neutron
NRAW	Raw Neutron Porosity	CNT	Compensated Neutron
NSBC	Neutron Porosity HS Cor.(SS)	CNT	Compensated Neutron
RFCN	Neutron Raw LS CPS	CNT	Compensated Neutron
RNCN	Neutron Raw SS CPS	CNT	Compensated Neutron
LHRO	Linear Porosity	GNT	Single Det Neutron
NAPI	Neutron	GNT	Single Det Neutron
CPGD	Compress. Goodness	DAR	Digital Acoustic Tool
CPSL	Compress. Slowness	DAR	Digital Acoustic Tool
DT1	Delta Time 1	DAR	Digital Acoustic Tool
DT2	Delta Time 2	DAR	Digital Acoustic Tool
DT3	Delta Time 3	DAR	Digital Acoustic Tool
DT4	Delta Time 4	DAR	Digital Acoustic Tool
DT5	Delta Time 5	DAR	Digital Acoustic Tool
DT6	Delta Time 6	DAR	Digital Acoustic Tool
DT7	Delta Time 7	DAR	Digital Acoustic Tool
GM	Shear Modulus	DAR	Digital Acoustic Tool
GN1	R1 Gain	DAR	Digital Acoustic Tool
GN2	R2 Gain	DAR	Digital Acoustic Tool
GN3	R3 Gain	DAR	Digital Acoustic Tool

Tool Mnemonics

Mnemonic	Mnemonic Description	Tool	Tool Description
GN4	R4 Gain	DAR	Digital Acoustic Tool
GN5	R5 Gain	DAR	Digital Acoustic Tool
GN6	R6 Gain	DAR	Digital Acoustic Tool
GN7	R7 Gain	DAR	Digital Acoustic Tool
GN8	R8 Gain	DAR	Digital Acoustic Tool
ITTC	Cmpr Intgr TT	DAR	Digital Acoustic Tool
ITTS	Shear Intrg TT	DAR	Digital Acoustic Tool
KM	Bulk Modulus	DAR	Digital Acoustic Tool
MPWR	Monopole Power	DAR	Digital Acoustic Tool
MSGD	Shear Goodness	DAR	Digital Acoustic Tool
MSHS	Shear Slowness	DAR	Digital Acoustic Tool
MSTT	Micro Sonic TT	DAR	Digital Acoustic Tool
PHSE	Phase	DAR	Digital Acoustic Tool
PRAT	Poisson's Ratio	DAR	Digital Acoustic Tool
RCDP	RH Cmpr DOL Phi	DAR	Digital Acoustic Tool
RCLP	RH Cmpr LS Phi	DAR	Digital Acoustic Tool
RCSP	RH Cmpr SS Phi	DAR	Digital Acoustic Tool
RCUP	RH Cmpr USR Phi	DAR	Digital Acoustic Tool
RSDP	RH Shear DOL Phi	DAR	Digital Acoustic Tool
RSLP	RH Shear LS Phi	DAR	Digital Acoustic Tool
RSSP	RH Shear SS Phi	DAR	Digital Acoustic Tool
RSUP	RH Shear USR Phi	DAR	Digital Acoustic Tool
SRAT	Slowness Ratio	DAR	Digital Acoustic Tool
STGD	Stoneley Goodness	DAR	Digital Acoustic Tool
STSL	Stoneley Slowness	DAR	Digital Acoustic Tool
TEMP	Temperature	DAR	Digital Acoustic Tool
TM1	R1 Delta T	DAR	Digital Acoustic Tool
TM2	R2 Delta T	DAR	Digital Acoustic Tool
TM3	R3 Delta T	DAR	Digital Acoustic Tool
TM4	R4 Delta T	DAR	Digital Acoustic Tool
TM5	R5 Delta T	DAR	Digital Acoustic Tool
TM6	R6 Delta T	DAR	Digital Acoustic Tool
TM7	R7 Delta T	DAR	Digital Acoustic Tool
TM8	R8 Delta T	DAR	Digital Acoustic Tool
VOLT	Head Voltage	DAR	Digital Acoustic Tool
WCDP	Wyllie Cmpr DOL Phi	DAR	Digital Acoustic Tool
WCLP	Wyllie Cmpr LS Phi	DAR	Digital Acoustic Tool
WCSP	Wyllie Cmpr SS Phi	DAR	Digital Acoustic Tool
WCUP	Wyllie Cmpr USR Phi	DAR	Digital Acoustic Tool
WF1	R1 LIS Waveform	DAR	Digital Acoustic Tool

Tool Mnemonics

Mnemonic	Mnemonic Description	Tool	Tool Description
WF2	R2 LIS Waveform	DAR	Digital Acoustic Tool
WF3	R3 LIS Waveform	DAR	Digital Acoustic Tool
WF4	R4 LIS Waveform	DAR	Digital Acoustic Tool
WF5	R5 LIS Waveform	DAR	Digital Acoustic Tool
WF6	R6 LIS Waveform	DAR	Digital Acoustic Tool
WF7	R7 LIS Waveform	DAR	Digital Acoustic Tool
WF8	R8 LIS Waveform	DAR	Digital Acoustic Tool
XTR1	Extra 1	DAR	Digital Acoustic Tool
XTR2	Extra 2	DAR	Digital Acoustic Tool
XTR3	Extra 3	DAR	Digital Acoustic Tool
XY1	R1 Signature	DAR	Digital Acoustic Tool
XY2	R2 Signature	DAR	Digital Acoustic Tool
XY3	R3 Signature	DAR	Digital Acoustic Tool
XY4	R4 Signature	DAR	Digital Acoustic Tool
XY5	R5 Signature	DAR	Digital Acoustic Tool
XY6	R6 Signature	DAR	Digital Acoustic Tool
XY7	R7 Signature	DAR	Digital Acoustic Tool
XY8	R8 Signature	DAR	Digital Acoustic Tool
YMEM	Young's Modulus	DAR	Digital Acoustic Tool
280D	280 Hz Gen DAC	DLL	Dual Laterolog
35DC	35 Hz Gen DAC	DLL	Dual Laterolog
35DF	35 Hz Gen Delta Frequency	DLL	Dual Laterolog
35DP	35 Hz Gen Delta Phase	DLL	Dual Laterolog
35GC	35 Hz Gen Current	DLL	Dual Laterolog
35GV	35 Hz Gen Voltage	DLL	Dual Laterolog
35IP	35 Hz Gen Current Phase	DLL	Dual Laterolog
35VP	35 Hz Gen Volt Phase	DLL	Dual Laterolog
CLLD	Deep Conductivity	DLL	Dual Laterolog
CLLS	Shallow Conductivity	DLL	Dual Laterolog
DPER	LLd Phase Error	DLL	Dual Laterolog
ID00	Deep Current 0	DLL	Dual Laterolog
ID90	Deep Current 90	DLL	Dual Laterolog
ILLD	Deep Current	DLL	Dual Laterolog
ILLS	Shallow Current	DLL	Dual Laterolog
IS00	Shallow Current 0	DLL	Dual Laterolog
IS90	Shallow Current 90	DLL	Dual Laterolog
LDRW	Deep Resistivity Raw	DLL	Dual Laterolog
LSRW	Shallow Resistivity Raw	DLL	Dual Laterolog
PEVT	Pit Electrode Volt	DLL	Dual Laterolog
PHER	LLs Phase Error	DLL	Dual Laterolog

Tool Mnemonics

Mnemonic	Mnemonic Description	Tool	Tool Description
PWRD	Deep Power	DLL	Dual Laterolog
PWRS	Shallow Power	DLL	Dual Laterolog
RDPI	LLd Resistivity I	DLL	Dual Laterolog
RLLD	Deep Resistivity	DLL	Dual Laterolog
RLLS	Shallow Resistivity	DLL	Dual Laterolog
VD00	Deep Voltage 0	DLL	Dual Laterolog
VD90	Deep Voltage 90	DLL	Dual Laterolog
VLLD	Deep Voltage	DLL	Dual Laterolog
VLLS	Shallow Voltage	DLL	Dual Laterolog
VS00	Shallow Voltage 0	DLL	Dual Laterolog
VS90	Shallow Voltage 90	DLL	Dual Laterolog
DL10	Deep Resistivity X 10	DLL	Dual Laterolog
SL10	Shallow Resistivity X 10	DLL	Dual Laterolog
TEN2	Tension Compression	DTD	Tension Compression
AZI1	Pad1 Azimuth	FED	Four Electrode Dipmeter
AZIM	Hole Azimuth	FED	Four Electrode Dipmeter
B	Total H Field	FED	Four Electrode Dipmeter
HDEV	Hole Deviation	FED	Four Electrode Dipmeter
PEC	PEC	FED	Four Electrode Dipmeter
RB	Rotation	FED	Four Electrode Dipmeter
TOTG	Total G Field	FED	Four Electrode Dipmeter
ZACC	Z Acceleration	FED	Four Electrode Dipmeter
GR	Gamma Ray	GR	Gamma Ray
A1	T1R1 3' Amplitude	HBC	High Resolution Borehole Sonic
A2	T1R2 3'10 Amplitude	HBC	High Resolution Borehole Sonic
A3	T1R3 4'2 Amplitude	HBC	High Resolution Borehole Sonic
A4	T1R4 5' Amplitude	HBC	High Resolution Borehole Sonic
A5	T2R1 5' Amplitude	HBC	High Resolution Borehole Sonic
A6	T2R2 4'2 Amplitude	HBC	High Resolution Borehole Sonic
A7	T2R3 3'10 Amplitude	HBC	High Resolution Borehole Sonic
A8	T2R4 3' Amplitude	HBC	High Resolution Borehole Sonic
Attn	Attenuation	HBC	High Resolution Borehole Sonic
BI	Bond Index	HBC	High Resolution Borehole Sonic
CNT1	T1R1 3' Counter	HBC	High Resolution Borehole Sonic
CNT2	T1R2 3'10 Counter	HBC	High Resolution Borehole Sonic
CNT3	T1R3 4'2 Counter	HBC	High Resolution Borehole Sonic
CNT4	T1R4 5' Counter	HBC	High Resolution Borehole Sonic
CNT5	T2R1 5' Counter	HBC	High Resolution Borehole Sonic
CNT6	T2R2 4'2 Counter	HBC	High Resolution Borehole Sonic
CNT7	T2R3 3'10 Counter	HBC	High Resolution Borehole Sonic



Tool Mnemonics

Mnemonic	Mnemonic Description	Tool	Tool Description
CNT8	T2R4 3' Counter	HBC	High Resolution Borehole Sonic
CS	Compressive Strength	HBC	High Resolution Borehole Sonic
DT	Compressional Delta Time	HBC	High Resolution Borehole Sonic
DTL	Lower Delta T Uncompensated	HBC	High Resolution Borehole Sonic
DTLM	Lower Micro DT Uncompensated	HBC	High Resolution Borehole Sonic
DTM	Min Delta T	HBC	High Resolution Borehole Sonic
DTQ	Delta T Quality	HBC	High Resolution Borehole Sonic
DTU	Upper Delta T Uncompensated	HBC	High Resolution Borehole Sonic
DTUM	Upper Micro DT Uncompensated	HBC	High Resolution Borehole Sonic
DTX	Max Delta T	HBC	High Resolution Borehole Sonic
GN1	T1R1 3' Gain	HBC	High Resolution Borehole Sonic
GN2	T1R2 3'10 Gain	HBC	High Resolution Borehole Sonic
GN3	T1R3 4'2 Gain	HBC	High Resolution Borehole Sonic
GN4	T1R4 5' Gain	HBC	High Resolution Borehole Sonic
GN5	T2R1 5' Gain	HBC	High Resolution Borehole Sonic
GN6	T2R2 4'2 Gain	HBC	High Resolution Borehole Sonic
GN7	T2R3 3'10 Gain	HBC	High Resolution Borehole Sonic
GN8	T2R4 3' Gain	HBC	High Resolution Borehole Sonic
ITT	Integrated TRL Time	HBC	High Resolution Borehole Sonic
MDT	Micro Delta T	HBC	High Resolution Borehole Sonic
MDTM	Min Micro Delta T	HBC	High Resolution Borehole Sonic
MDTQ	Micro Delta T Quality	HBC	High Resolution Borehole Sonic
MDTX	Max Micro Delta T	HBC	High Resolution Borehole Sonic
MITT	Micro ITT	HBC	High Resolution Borehole Sonic
NOI1	T1R1 3' Noise	HBC	High Resolution Borehole Sonic
NOI2	T1R2 3'10 Noise	HBC	High Resolution Borehole Sonic
NOI3	T1R3 4'2 Noise	HBC	High Resolution Borehole Sonic
NOI4	T1R4 5' Noise	HBC	High Resolution Borehole Sonic
NOI5	T2R1 5' Noise	HBC	High Resolution Borehole Sonic
NOI6	T2R2 4'2 Noise	HBC	High Resolution Borehole Sonic
NOI7	T2R3 3'10 Noise	HBC	High Resolution Borehole Sonic
NOI8	T2R4 3' Noise	HBC	High Resolution Borehole Sonic
RCDP	Sonic Phi (DL-RH)	HBC	High Resolution Borehole Sonic
RCLPI	Sonic Phi (LS-RH)	HBC	High Resolution Borehole Sonic
RCSP	Sonic Phi (SS-RH)	HBC	High Resolution Borehole Sonic
RCUP	Sonic USR RH Phi	HBC	High Resolution Borehole Sonic
SPDL	Sonic Phi (DL)	HBC	High Resolution Borehole Sonic
SPHI	Sonic Phi (LS)	HBC	High Resolution Borehole Sonic
SPSS	Sonic Phi (SS)	HBC	High Resolution Borehole Sonic
T1MN	T1R1 3' TT Min	HBC	High Resolution Borehole Sonic

Tool Mnemonics

Mnemonic	Mnemonic Description	Tool	Tool Description
T1MX	T1R1 3' TT Max	HBC	High Resolution Borehole Sonic
TEMP	Temperature	HBC	High Resolution Borehole Sonic
THR1	T1R1 3' Threshold	HBC	High Resolution Borehole Sonic
THR2	T1R2 3'10 Threshold	HBC	High Resolution Borehole Sonic
THR3	T1R3 4'2 Threshold	HBC	High Resolution Borehole Sonic
THR4	T1R4 5' Threshold	HBC	High Resolution Borehole Sonic
THR5	T2R1 5' Threshold	HBC	High Resolution Borehole Sonic
THR6	T2R2 4'2 Threshold	HBC	High Resolution Borehole Sonic
THR7	T2R3 3'10 Threshold	HBC	High Resolution Borehole Sonic
THR8	T2R4 3' Threshold	HBC	High Resolution Borehole Sonic
TM1	T1R1 3' TT	HBC	High Resolution Borehole Sonic
TM2	T1R2 3'10 TT	HBC	High Resolution Borehole Sonic
TM3	T1R3 4'2 TT	HBC	High Resolution Borehole Sonic
TM4	T1R4 5' TT	HBC	High Resolution Borehole Sonic
TM5	T2R1 5' TT	HBC	High Resolution Borehole Sonic
TM6	T2R2 4'2 TT	HBC	High Resolution Borehole Sonic
TM7	T2R3 3'10 TT	HBC	High Resolution Borehole Sonic
TM8	T2R4 3' TT	HBC	High Resolution Borehole Sonic
TMX2	T1R2 3'10 TT Min	HBC	High Resolution Borehole Sonic
TMX2	T1R2 3'10 TT Max	HBC	High Resolution Borehole Sonic
TMX3	T1R3 4'2 TT Max	HBC	High Resolution Borehole Sonic
TMX3	T1R3 4'2 TT Min	HBC	High Resolution Borehole Sonic
TMX4	T1R4 5' TT Min	HBC	High Resolution Borehole Sonic
TMX4	T1R4 5' TT Max	HBC	High Resolution Borehole Sonic
TMX5	T2R1 5' TT Max	HBC	High Resolution Borehole Sonic
TMX5	T2R1 5' TT Min	HBC	High Resolution Borehole Sonic
TMX6	T2R2 4'2 TT Max	HBC	High Resolution Borehole Sonic
TMX6	T2R2 4'2 TT Min	HBC	High Resolution Borehole Sonic
TMX7	T2R3 3'10 TT Max	HBC	High Resolution Borehole Sonic
TMX7	T2R3 3'10 TT Min	HBC	High Resolution Borehole Sonic
TMX8	T2R4 3' TT Min	HBC	High Resolution Borehole Sonic
TMX8	T2R4 3' TT Max	HBC	High Resolution Borehole Sonic
UPHS	Sonic USR Phi	HBC	High Resolution Borehole Sonic
VOLT	Head Voltage	HBC	High Resolution Borehole Sonic
XY1	T1R1 3' XY Sig	HBC	High Resolution Borehole Sonic
XY2	T1R2 3'10 XY Sig	HBC	High Resolution Borehole Sonic
XY3	T1R3 4'2 XY Sig	HBC	High Resolution Borehole Sonic
XY4	T1R4 5' XY Sig	HBC	High Resolution Borehole Sonic
XY5	T2R1 5' XY Sig	HBC	High Resolution Borehole Sonic
XY6	T2R2 4'2 XY Sig	HBC	High Resolution Borehole Sonic



Tool Mnemonics

Mnemonic	Mnemonic Description	Tool	Tool Description
XY7	T2R3 3'10 XY Sig	HBC	High Resolution Borehole Sonic
XY8	T2R4 3' XY Sig	HBC	High Resolution Borehole Sonic
DDTD	Delta Compression	HBC	Tension Compression
DXTM	Z Acceleration Time	HMI	High Resolution Micro Imager
GDV	GDV Primary	HMI	High Resolution Micro Imager
GI	Guard Current	HMI	High Resolution Micro Imager
GIQ	PADV Quadr.	HMI	High Resolution Micro Imager
GTOT	Total G Field	HMI	High Resolution Micro Imager
GX	X Axis Accelerometer	HMI	High Resolution Micro Imager
GY	Y Axis Accelerometer	HMI	High Resolution Micro Imager
GZ	Z Axis Accelerometer	HMI	High Resolution Micro Imager
HAZI	Tool Azimuth	HMI	High Resolution Micro Imager
IMG1	Buttons	HMI	High Resolution Micro Imager
LVDT	LVDT Drive	HMI	High Resolution Micro Imager
MOTI	Motor Current	HMI	High Resolution Micro Imager
MOTV	Motor Voltage	HMI	High Resolution Micro Imager
MTF	Magnetic Tool Face	HMI	High Resolution Micro Imager
NTEM	Navigation Temp	HMI	High Resolution Micro Imager
POMN	PAD 1 Minimum	HMI	High Resolution Micro Imager
POMX	PAD 1 Maximum	HMI	High Resolution Micro Imager
P1B7	P1B7 Fast	HMI	High Resolution Micro Imager
P1MN	PAD 2 Minimum	HMI	High Resolution Micro Imager
P1MX	PAD 2 Maximum	HMI	High Resolution Micro Imager
P1R	P1R Resistivity	HMI	High Resolution Micro Imager
P2B7	P2B7 Fast	HMI	High Resolution Micro Imager
P2MN	PAD 3 Minimum	HMI	High Resolution Micro Imager
P2MX	PAD 3 Maximum	HMI	High Resolution Micro Imager
P2R	P2R Resistivity	HMI	High Resolution Micro Imager
P3B7	P3B7 Fast	HMI	High Resolution Micro Imager
P3MN	PAD 4 Minimum	HMI	High Resolution Micro Imager
P3MX	PAD 4 Maximum	HMI	High Resolution Micro Imager
P3R	P3R Resistivity	HMI	High Resolution Micro Imager
P4B7	P4B7 Fast	HMI	High Resolution Micro Imager
P4MN	PAD 5 Minimum	HMI	High Resolution Micro Imager
P4MX	PAD 5 Maximum	HMI	High Resolution Micro Imager
P4R	P4R Resistivity	HMI	High Resolution Micro Imager
P5B7	P5B7 Fast	HMI	High Resolution Micro Imager
P5MN	PAD 6 Minimum	HMI	High Resolution Micro Imager
P5MX	PAD 6 Maximum	HMI	High Resolution Micro Imager
P5R	P5R Resistivity	HMI	High Resolution Micro Imager

Tool Mnemonics

Mnemonic	Mnemonic Description	Tool	Tool Description
P6B7	P6B7 Fast	HMI	High Resolution Micro Imager
P6R	P6R Resistivity	HMI	High Resolution Micro Imager
PAD1	PAD1 Packed	HMI	High Resolution Micro Imager
PAD2	PAD2 Packed	HMI	High Resolution Micro Imager
PAD3	PAD3 Packed	HMI	High Resolution Micro Imager
PAD4	PAD4 Packed	HMI	High Resolution Micro Imager
PAD5	PAD5 Packed	HMI	High Resolution Micro Imager
PAD6	PAD6 Packed	HMI	High Resolution Micro Imager
PADV	PADV in Phase	HMI	High Resolution Micro Imager
PP	Pad Presser	HMI	High Resolution Micro Imager
RAD1	Radius Pad 1	HMI	High Resolution Micro Imager
RAD2	Radius Pad 2	HMI	High Resolution Micro Imager
RAD3	Radius Pad 3	HMI	High Resolution Micro Imager
RAD4	Radius Pad 4	HMI	High Resolution Micro Imager
RAD5	Radius Pad 5	HMI	High Resolution Micro Imager
RAD6	Radius Pad 6	HMI	High Resolution Micro Imager
RB	Relative Bearing	HMI	High Resolution Micro Imager
RHOA	Rho Average	HMI	High Resolution Micro Imager
SQ	Seq Count	HMI	High Resolution Micro Imager
UAZI	Pad1 Azi No MDEC	HMI	High Resolution Micro Imager
UHAZ	Tool Azi No MDEC	HMI	High Resolution Micro Imager
V5	5 V Rail	HMI	High Resolution Micro Imager
VI	Valve Current	HMI	High Resolution Micro Imager
VREF	Gen DAC VRef	HMI	High Resolution Micro Imager
VRG	14 V Rail	HMI	High Resolution Micro Imager
VRGN	14 V Rail Neg	HMI	High Resolution Micro Imager
XTR1	Extra 1	HMI	High Resolution Micro Imager
XTR2	Extra 2	HMI	High Resolution Micro Imager
XTR3	Extra 3	HMI	High Resolution Micro Imager
XTR4	Extra 4	HMI	High Resolution Micro Imager
ZAC5	Z Acc 0.02 in.	HMI	High Resolution Micro Imager
ZACC	Z Acceleration Fast	HMI	High Resolution Micro Imager
ZNOW	Z Acceleration Now	HMI	High Resolution Micro Imager
ZREF	Gen DAC Zero Ref	HMI	High Resolution Micro Imager
AZI1	Pad1 Azimuth	HMI	High Resolution Micro Imager
B1	Button 1 Measurement	HMI	High Resolution Micro Imager
B2	Button 2 Measurement	HMI	High Resolution Micro Imager
B3	Button 3 Measurement	HMI	High Resolution Micro Imager
B4	Button 4 Measurement	HMI	High Resolution Micro Imager
B5	Button 5 Measurement	HMI	High Resolution Micro Imager



Tool Mnemonics

Mnemonic	Mnemonic Description	Tool	Tool Description
B6	Button 6 Measurement	HMI	High Resolution Micro Imager
B7	Button 7 Measurement	HMI	High Resolution Micro Imager
B8	Button 8 Measurement	HMI	High Resolution Micro Imager
B9	Button 9 Measurement	HMI	High Resolution Micro Imager
B10	Button 10 Measurement	HMI	High Resolution Micro Imager
B11	Button 11 Measurement	HMI	High Resolution Micro Imager
B12	Button 12 Measurement	HMI	High Resolution Micro Imager
B13	Button 13 Measurement	HMI	High Resolution Micro Imager
B14	Button 14 Measurement	HMI	High Resolution Micro Imager
B15	Button 15 Measurement	HMI	High Resolution Micro Imager
B16	Button 16 Measurement	HMI	High Resolution Micro Imager
B17	Button 17 Measurement	HMI	High Resolution Micro Imager
B18	Button 18 Measurement	HMI	High Resolution Micro Imager
B19	Button 19 Measurement	HMI	High Resolution Micro Imager
B20	Button 20 Measurement	HMI	High Resolution Micro Imager
B21	Button 21 Measurement	HMI	High Resolution Micro Imager
B22	Button 22 Measurement	HMI	High Resolution Micro Imager
B23	Button 23 Measurement	HMI	High Resolution Micro Imager
B24	Button 24 Measurement	HMI	High Resolution Micro Imager
B25	Button 25 Measurement	HMI	High Resolution Micro Imager
BTOT	Total Magnetic Field	HMI	High Resolution Micro Imager
BX	X Axis Magnetometer	HMI	High Resolution Micro Imager
BY	Y Axis Magnetometer	HMI	High Resolution Micro Imager
BZ	Z Axis Magnetometer	HMI	High Resolution Micro Imager
C14	Diameter 1-4	HMI	High Resolution Micro Imager
C25	Diameter 2-5	HMI	High Resolution Micro Imager
C36	Diameter 3-6	HMI	High Resolution Micro Imager
CTEM	Cartridge Temperature	HMI	High Resolution Micro Imager
DEVI	Tool Deviation	HMI	High Resolution Micro Imager
DMAX	Max Diameter	HMI	High Resolution Micro Imager
DMIN	Min Diameter	HMI	High Resolution Micro Imager
DMP1	DM PAD1 Packed	HMI	High Resolution Micro Imager
DMP2	DM PAD2 Packed	HMI	High Resolution Micro Imager
DMP3	DM PAD3 Packed	HMI	High Resolution Micro Imager
DMP4	DM PAD4 Packed	HMI	High Resolution Micro Imager
DMP5	DM PAD5 Packed	HMI	High Resolution Micro Imager
DMP6	DM PAD6 Packed	HMI	High Resolution Micro Imager
CILD	Deep IEL Conductivity	IEL	Induction Electric Log
RILD	Deep IEL Resistivity	IEL	Induction Electric Log
SN	Short Normal	IEL	Induction Electric Log

Tool Mnemonics

Mnemonic	Mnemonic Description	Tool	Tool Description
ADTH	Actual Depth	LSP	Line Speed
LS	Line Speed	LSP	Line Speed
RSTM	Relative System Time	LSP	Line Speed
SPMA	Sorensen Current	LSP	Line Speed
SPVT	Sorensen Voltage	LSP	Line Speed
MAXI	Max ID	MAC	Multi-Arm Caliper
MINI	Min ID	MAC	Multi-Arm Caliper
EDOL	Epithermal Porosity (DO)	MAN	Multi Array Neutron
EFCN	Epithermal Far CPS	MAN	Multi Array Neutron
EFRC	Epithermal Far Raw CPS	MAN	Multi Array Neutron
ELIM	Epithermal Porosity (LS)	MAN	Multi Array Neutron
ENCN	Epithermal Near CPS	MAN	Multi Array Neutron
ENRC	Epithermal Near Raw CPS	MAN	Multi Array Neutron
EPHI	Epithermal Porosity	MAN	Multi Array Neutron
ERAT	Epithermal Ratio	MAN	Multi Array Neutron
ESAN	Epithermal Porosity (SS)	MAN	Multi Array Neutron
GR	Gamma Ray	MAN	Multi Array Neutron
TDOL	Thermal Porosity (DO)	MAN	Multi Array Neutron
TFCN	Thermal Far CPS	MAN	Multi Array Neutron
TFRC	Thermal Far Raw CPS	MAN	Multi Array Neutron
TLIM	Thermal Porosity (LS)	MAN	Multi Array Neutron
TNCN	Thermal Near CPS	MAN	Multi Array Neutron
TNRC	Thermal Near Raw CPS	MAN	Multi Array Neutron
TPHI	Thermal Porosity	MAN	Multi Array Neutron
TRAT	Thermal Ratio	MAN	Multi Array Neutron
TSAN	Thermal Porosity (SS)	MAN	Multi Array Neutron
ADCZ	ADC Zero	MCC	MAN Tool Communication Cart
HDV	Head Voltage	MCC	MAN Tool Communication Cart
TEMP	Temperature	MCC	MAN Tool Communication Cart
CPGD	Compress. Goodness	MDA	Monopole Dipole Acoustic
CPSL	Compress. Slowness	MDA	Monopole Dipole Acoustic
DPWR	Dipole Power	MDA	Monopole Dipole Acoustic
DSHG	Shear Goodness (D)	MDA	Monopole Dipole Acoustic
DSHS	Shear Slowness (D)	MDA	Monopole Dipole Acoustic
DT1	DT1	MDA	Monopole Dipole Acoustic
DT2	DT2	MDA	Monopole Dipole Acoustic
DT3	DT3	MDA	Monopole Dipole Acoustic
DT4	DT4	MDA	Monopole Dipole Acoustic
DT5	DT5	MDA	Monopole Dipole Acoustic
DT6	DT6	MDA	Monopole Dipole Acoustic



Tool Mnemonics

Mnemonic	Mnemonic Description	Tool	Tool Description
DT7	DT7	MDA	Monopole Dipole Acoustic
GD	Shear Modulus (D)	MDA	Monopole Dipole Acoustic
GM	Shear Modulus (M)	MDA	Monopole Dipole Acoustic
GN1	R1 Gain	MDA	Monopole Dipole Acoustic
GN2	R2 Gain	MDA	Monopole Dipole Acoustic
GN3	R3 Gain	MDA	Monopole Dipole Acoustic
GN4	R4 Gain	MDA	Monopole Dipole Acoustic
GN5	R5 Gain	MDA	Monopole Dipole Acoustic
GN6	R6 Gain	MDA	Monopole Dipole Acoustic
GN7	R7 Gain	MDA	Monopole Dipole Acoustic
GN8	R8 Gain	MDA	Monopole Dipole Acoustic
GX	Shear Modulus (X)	MDA	Monopole Dipole Acoustic
ITSD	Shear Integrated TT (D)	MDA	Monopole Dipole Acoustic
ITSM	Shear Integrated TT (M)	MDA	Monopole Dipole Acoustic
ITSX	Shear Integrated TT (X)	MDA	Monopole Dipole Acoustic
ITTC	Cmpr Integrated TT	MDA	Monopole Dipole Acoustic
KD	Bulk Modulus (D)	MDA	Monopole Dipole Acoustic
KM	Bulk Modulus (M)	MDA	Monopole Dipole Acoustic
KX	Bulk Modulus (X)	MDA	Monopole Dipole Acoustic
MPWR	Monopole Power	MDA	Monopole Dipole Acoustic
MSGD	Shear Goodness (M)	MDA	Monopole Dipole Acoustic
MSHS	Shear Slowness (M)	MDA	Monopole Dipole Acoustic
MSTT	Micro Sonic TT	MDA	Monopole Dipole Acoustic
PHSE	Phase	MDA	Monopole Dipole Acoustic
PRTD	Poisson's Ratio (D)	MDA	Monopole Dipole Acoustic
PRTM	Poisson's Ratio (M)	MDA	Monopole Dipole Acoustic
PRTX	Poisson's Ratio (X)	MDA	Monopole Dipole Acoustic
RCDP	RH Cmpr DOL Phi	MDA	Monopole Dipole Acoustic
RCLP	RH Cmpr LS Phi (M)	MDA	Monopole Dipole Acoustic
RCSP	RH Cmpr SS Phi	MDA	Monopole Dipole Acoustic
RCUP	RH Cmpr USR Phi	MDA	Monopole Dipole Acoustic
RSDD	RH Shear DOL Phi (D)	MDA	Monopole Dipole Acoustic
RSDM	RH Shear DOL Phi (M)	MDA	Monopole Dipole Acoustic
RSDX	RH Shear DOL Phi (X)	MDA	Monopole Dipole Acoustic
RSLD	RH Shear LS Phi (D)	MDA	Monopole Dipole Acoustic
RSLM	RH Shear LS Phi (M)	MDA	Monopole Dipole Acoustic
RSLX	RH Shear LS Phi (X)	MDA	Monopole Dipole Acoustic
RSSD	RH Shear SS Phi (D)	MDA	Monopole Dipole Acoustic
RSSM	RH Shear SS Phi (M)	MDA	Monopole Dipole Acoustic
RSSX	RH Shear SS Phi (X)	MDA	Monopole Dipole Acoustic

Tool Mnemonics

Mnemonic	Mnemonic Description	Tool	Tool Description
RSUD	RH Shear USR Phi (D)	MDA	Monopole Dipole Acoustic
RSUM	RH Shear USR Phi (M)	MDA	Monopole Dipole Acoustic
RSUX	RH Shear USR Phi (X)	MDA	Monopole Dipole Acoustic
SRAT	Slowness Ratio (M)	MDA	Monopole Dipole Acoustic
SRTD	Slowness Ratio (D)	MDA	Monopole Dipole Acoustic
SRTX	Slowness Ratio (X)	MDA	Monopole Dipole Acoustic
STGD	Stoneley Goodness	MDA	Monopole Dipole Acoustic
STSL	Stoneley Slowness	MDA	Monopole Dipole Acoustic
TEMP	Temperature	MDA	Monopole Dipole Acoustic
TM1	R1 Delta T	MDA	Monopole Dipole Acoustic
TM2	R2 Delta T	MDA	Monopole Dipole Acoustic
TM3	R3 Delta T	MDA	Monopole Dipole Acoustic
TM4	R4 Delta T	MDA	Monopole Dipole Acoustic
TM5	R5 Delta T	MDA	Monopole Dipole Acoustic
TM6	R6 Delta T	MDA	Monopole Dipole Acoustic
TM7	R7 Delta T	MDA	Monopole Dipole Acoustic
TM8	R8 Delta T	MDA	Monopole Dipole Acoustic
VOLT	Head Voltage	MDA	Monopole Dipole Acoustic
WCDP	Wyllie Cmpr DOL Phi	MDA	Monopole Dipole Acoustic
WCLP	Wyllie Cmpr LS Phi	MDA	Monopole Dipole Acoustic
WCSP	Wyllie Cmpr SS Phi	MDA	Monopole Dipole Acoustic
WCUP	Wyllie Cmpr USR Phi	MDA	Monopole Dipole Acoustic
WF1	R1 LIS Waveform	MDA	Monopole Dipole Acoustic
WF2	R2 LIS Waveform	MDA	Monopole Dipole Acoustic
WF3	R3 LIS Waveform	MDA	Monopole Dipole Acoustic
WF4	R4 LIS Waveform	MDA	Monopole Dipole Acoustic
WF5	R5 LIS Waveform	MDA	Monopole Dipole Acoustic
WF6	R6 LIS Waveform	MDA	Monopole Dipole Acoustic
WF7	R7 LIS Waveform	MDA	Monopole Dipole Acoustic
WF8	R8 LIS Waveform	MDA	Monopole Dipole Acoustic
XSHG	Shear Goodness (X)	MDA	Monopole Dipole Acoustic
XSHS	Shear Slowness (X)	MDA	Monopole Dipole Acoustic
XTR1	Extra 1	MDA	Monopole Dipole Acoustic
XTR2	Extra 2	MDA	Monopole Dipole Acoustic
XTR3	Extra 3	MDA	Monopole Dipole Acoustic
XY1	R1 Signature	MDA	Monopole Dipole Acoustic
XY2	R2 Signature	MDA	Monopole Dipole Acoustic
XY3	R3 Signature	MDA	Monopole Dipole Acoustic
XY4	R4 Signature	MDA	Monopole Dipole Acoustic
XY5	R5 Signature	MDA	Monopole Dipole Acoustic



Tool Mnemonics

Mnemonic	Mnemonic Description	Tool	Tool Description
XY6	R6 Signature	MDA	Monopole Dipole Acoustic
XY7	R7 Signature	MDA	Monopole Dipole Acoustic
XY8	R8 Signature	MDA	Monopole Dipole Acoustic
YMED	Young's Modulus (D)	MDA	Monopole Dipole Acoustic
YMEM	Young's Modulus (M)	MDA	Monopole Dipole Acoustic
YMEX	Young's Modulus (X)	MDA	Monopole Dipole Acoustic
HDV	Head Voltage	MEL	Micro Electric Log
MEL1	1.5 Resistivity	MEL	Micro Electric Log
MEL2	2 Resistivity	MEL	Micro Electric Log
MELI	MEL-I (STD)	MEL	Micro Electric Log
MV15	MEL-V 1.5 (STD)	MEL	Micro Electric Log
MV2	MEL-V 2 (STD)	MEL	Micro Electric Log
TEMP	Temperature	MEL	Micro Electric Log
ZERO	ADC Offset	MEL	Micro Electric Log
MOTX	Magnetic Orientation	MOT	Magnetic Orientation Tool
AVRD	Avg Radius	MSC	Multi Sensor Caliper
BERR	Transmission Errors	MSC	Multi Sensor Caliper
DEVI	Deviation	MSC	Multi Sensor Caliper
DIAV	Avg Diameter	MSC	Multi Sensor Caliper
DIMN	Min Diameter	MSC	Multi Sensor Caliper
DIMX	Max Diameter	MSC	Multi Sensor Caliper
DMNA	Min Diameter Arm	MSC	Multi Sensor Caliper
DMXA	Max Diameter Arm	MSC	Multi Sensor Caliper
ECCE	Eccentering	MSC	Multi Sensor Caliper
ETMP	External Temperature	MSC	Multi Sensor Caliper
GRAY	Gray Map	MSC	Multi Sensor Caliper
GSCL	Gray Scale	MSC	Multi Sensor Caliper
HIGH	High Arm	MSC	Multi Sensor Caliper
HREF	Temperature High Ref	MSC	Multi Sensor Caliper
ID1	Raw Arm Data	MSC	Multi Sensor Caliper
ID2	Arm # 2	MSC	Multi Sensor Caliper
ID3	Arm # 3	MSC	Multi Sensor Caliper
ID4	Arm # 4	MSC	Multi Sensor Caliper
ID5	Arm # 5	MSC	Multi Sensor Caliper
ID6	Arm # 6	MSC	Multi Sensor Caliper
ID7	Arm # 7	MSC	Multi Sensor Caliper
ID8	Arm # 8	MSC	Multi Sensor Caliper
ID9	Arm # 9	MSC	Multi Sensor Caliper
ID10	Arm # 10	MSC	Multi Sensor Caliper
ID11	Arm # 11	MSC	Multi Sensor Caliper

Tool Mnemonics

Mnemonic	Mnemonic Description	Tool	Tool Description
ID12	Arm # 12	MSC	Multi Sensor Caliper
ID13	Arm # 13	MSC	Multi Sensor Caliper
ID14	Arm # 14	MSC	Multi Sensor Caliper
ID15	Arm # 15	MSC	Multi Sensor Caliper
ID16	Arm # 16	MSC	Multi Sensor Caliper
ID17	Arm # 17	MSC	Multi Sensor Caliper
ID18	Arm # 18	MSC	Multi Sensor Caliper
ID19	Arm # 19	MSC	Multi Sensor Caliper
ID20	Arm # 20	MSC	Multi Sensor Caliper
ID21	Arm # 21	MSC	Multi Sensor Caliper
ID22	Arm # 22	MSC	Multi Sensor Caliper
ID23	Arm # 23	MSC	Multi Sensor Caliper
ID24	Arm # 24	MSC	Multi Sensor Caliper
ID25	Arm # 25	MSC	Multi Sensor Caliper
ID26	Arm # 26	MSC	Multi Sensor Caliper
ID27	Arm # 27	MSC	Multi Sensor Caliper
ID28	Arm # 28	MSC	Multi Sensor Caliper
ID29	Arm # 29	MSC	Multi Sensor Caliper
ID30	Arm # 30	MSC	Multi Sensor Caliper
ID31	Arm # 31	MSC	Multi Sensor Caliper
ID32	Arm # 32	MSC	Multi Sensor Caliper
ID33	Arm # 33	MSC	Multi Sensor Caliper
ID34	Arm # 34	MSC	Multi Sensor Caliper
ID35	Arm # 35	MSC	Multi Sensor Caliper
ID36	Arm # 36	MSC	Multi Sensor Caliper
ID37	Arm # 37	MSC	Multi Sensor Caliper
ID38	Arm # 38	MSC	Multi Sensor Caliper
ID39	Arm # 39	MSC	Multi Sensor Caliper
ID40	Arm # 40	MSC	Multi Sensor Caliper
ID41	Arm # 41	MSC	Multi Sensor Caliper
ID42	Arm # 42	MSC	Multi Sensor Caliper
ID43	Arm # 43	MSC	Multi Sensor Caliper
ID44	Arm # 44	MSC	Multi Sensor Caliper
ID45	Arm # 45	MSC	Multi Sensor Caliper
ID46	Arm # 46	MSC	Multi Sensor Caliper
ID47	Arm # 47	MSC	Multi Sensor Caliper
ID48	Arm # 48	MSC	Multi Sensor Caliper
ID49	Arm # 49	MSC	Multi Sensor Caliper
ID50	Arm # 50	MSC	Multi Sensor Caliper
ID51	Arm # 51	MSC	Multi Sensor Caliper



Tool Mnemonics

Mnemonic	Mnemonic Description	Tool	Tool Description
ID52	Arm # 52	MSC	Multi Sensor Caliper
ID53	Arm # 53	MSC	Multi Sensor Caliper
ID54	Arm # 54	MSC	Multi Sensor Caliper
ID55	Arm # 55	MSC	Multi Sensor Caliper
ID56	Arm # 56	MSC	Multi Sensor Caliper
ID57	Arm # 57	MSC	Multi Sensor Caliper
ID58	Arm # 58	MSC	Multi Sensor Caliper
ID59	Arm # 59	MSC	Multi Sensor Caliper
ID60	Arm # 60	MSC	Multi Sensor Caliper
ID61	Arm # 61	MSC	Multi Sensor Caliper
ID62	Arm # 62	MSC	Multi Sensor Caliper
ID63	Arm # 63	MSC	Multi Sensor Caliper
ID64	Arm # 64	MSC	Multi Sensor Caliper
ID65	Arm # 65	MSC	Multi Sensor Caliper
ID66	Arm # 66	MSC	Multi Sensor Caliper
ID67	Arm # 67	MSC	Multi Sensor Caliper
ID68	Arm # 68	MSC	Multi Sensor Caliper
ID69	Arm # 69	MSC	Multi Sensor Caliper
ID70	Arm # 70	MSC	Multi Sensor Caliper
ID71	Arm # 71	MSC	Multi Sensor Caliper
ID72	Arm # 72	MSC	Multi Sensor Caliper
ID73	Arm # 73	MSC	Multi Sensor Caliper
ID74	Arm # 74	MSC	Multi Sensor Caliper
ID75	Arm # 75	MSC	Multi Sensor Caliper
ID76	Arm # 76	MSC	Multi Sensor Caliper
ID77	Arm # 77	MSC	Multi Sensor Caliper
ID78	Arm # 78	MSC	Multi Sensor Caliper
ID79	Arm # 79	MSC	Multi Sensor Caliper
ID80	Arm # 80	MSC	Multi Sensor Caliper
IDAV	Avg ID	MSC	Multi Sensor Caliper
IDMN	Min ID	MSC	Multi Sensor Caliper
IDMX	Max ID	MSC	Multi Sensor Caliper
ITMP	Internal Temperature	MSC	Multi Sensor Caliper
LDIA	Largest Diameter	MSC	Multi Sensor Caliper
LREF	Temperature Low Ref	MSC	Multi Sensor Caliper
MNRD	Min Radius	MSC	Multi Sensor Caliper
MXRD	Max Radius	MSC	Multi Sensor Caliper
OVAL	Ovality	MSC	Multi Sensor Caliper
R01	Radius 1	MSC	Multi Sensor Caliper
R02	Radius 2	MSC	Multi Sensor Caliper

Tool Mnemonics

Mnemonic	Mnemonic Description	Tool	Tool Description
R03	Radius 3	MSC	Multi Sensor Caliper
R04	Radius 4	MSC	Multi Sensor Caliper
R05	Radius 5	MSC	Multi Sensor Caliper
R06	Radius 6	MSC	Multi Sensor Caliper
R07	Radius 7	MSC	Multi Sensor Caliper
R08	Radius 8	MSC	Multi Sensor Caliper
R09	Radius 9	MSC	Multi Sensor Caliper
R10	Radius 10	MSC	Multi Sensor Caliper
R11	Radius 11	MSC	Multi Sensor Caliper
R12	Radius 12	MSC	Multi Sensor Caliper
R13	Radius 13	MSC	Multi Sensor Caliper
R14	Radius 14	MSC	Multi Sensor Caliper
R15	Radius 15	MSC	Multi Sensor Caliper
R16	Radius 16	MSC	Multi Sensor Caliper
R17	Radius 17	MSC	Multi Sensor Caliper
R18	Radius 18	MSC	Multi Sensor Caliper
R19	Radius 19	MSC	Multi Sensor Caliper
R20	Radius 20	MSC	Multi Sensor Caliper
R21	Radius 21	MSC	Multi Sensor Caliper
R22	Radius 22	MSC	Multi Sensor Caliper
R23	Radius 23	MSC	Multi Sensor Caliper
R24	Radius 24	MSC	Multi Sensor Caliper
R25	Radius 25	MSC	Multi Sensor Caliper
R26	Radius 26	MSC	Multi Sensor Caliper
R27	Radius 27	MSC	Multi Sensor Caliper
R28	Radius 28	MSC	Multi Sensor Caliper
R29	Radius 29	MSC	Multi Sensor Caliper
R30	Radius 30	MSC	Multi Sensor Caliper
R31	Radius 31	MSC	Multi Sensor Caliper
R32	Radius 32	MSC	Multi Sensor Caliper
R33	Radius 33	MSC	Multi Sensor Caliper
R34	Radius 34	MSC	Multi Sensor Caliper
R35	Radius 35	MSC	Multi Sensor Caliper
R36	Radius 36	MSC	Multi Sensor Caliper
R37	Radius 37	MSC	Multi Sensor Caliper
R38	Radius 38	MSC	Multi Sensor Caliper
R39	Radius 39	MSC	Multi Sensor Caliper
R40	Radius 40	MSC	Multi Sensor Caliper
R41	Radius 41	MSC	Multi Sensor Caliper
R42	Radius 42	MSC	Multi Sensor Caliper



Tool Mnemonics

Mnemonic	Mnemonic Description	Tool	Tool Description
R43	Radius 43	MSC	Multi Sensor Caliper
R44	Radius 44	MSC	Multi Sensor Caliper
R45	Radius 45	MSC	Multi Sensor Caliper
R46	Radius 46	MSC	Multi Sensor Caliper
R47	Radius 47	MSC	Multi Sensor Caliper
R48	Radius 48	MSC	Multi Sensor Caliper
R49	Radius 49	MSC	Multi Sensor Caliper
R50	Radius 50	MSC	Multi Sensor Caliper
R51	Radius 51	MSC	Multi Sensor Caliper
R52	Radius 52	MSC	Multi Sensor Caliper
R53	Radius 53	MSC	Multi Sensor Caliper
R54	Radius 54	MSC	Multi Sensor Caliper
R55	Radius 55	MSC	Multi Sensor Caliper
R56	Radius 56	MSC	Multi Sensor Caliper
R57	Radius 57	MSC	Multi Sensor Caliper
R58	Radius 58	MSC	Multi Sensor Caliper
R59	Radius 59	MSC	Multi Sensor Caliper
R60	Radius 60	MSC	Multi Sensor Caliper
R61	Radius 61	MSC	Multi Sensor Caliper
R62	Radius 62	MSC	Multi Sensor Caliper
R63	Radius 63	MSC	Multi Sensor Caliper
R64	Radius 64	MSC	Multi Sensor Caliper
R65	Radius 65	MSC	Multi Sensor Caliper
R66	Radius 66	MSC	Multi Sensor Caliper
R67	Radius 67	MSC	Multi Sensor Caliper
R68	Radius 68	MSC	Multi Sensor Caliper
R69	Radius 69	MSC	Multi Sensor Caliper
R70	Radius 70	MSC	Multi Sensor Caliper
R71	Radius 71	MSC	Multi Sensor Caliper
R72	Radius 72	MSC	Multi Sensor Caliper
R73	Radius 73	MSC	Multi Sensor Caliper
R74	Radius 74	MSC	Multi Sensor Caliper
R75	Radius 75	MSC	Multi Sensor Caliper
R76	Radius 76	MSC	Multi Sensor Caliper
R77	Radius 77	MSC	Multi Sensor Caliper
R78	Radius 78	MSC	Multi Sensor Caliper
R79	Radius 79	MSC	Multi Sensor Caliper
R80	Radius 80	MSC	Multi Sensor Caliper
RMNA	Min Radius Arm	MSC	Multi Sensor Caliper
RMXA	Max Radius Arm	MSC	Multi Sensor Caliper

Tool Mnemonics

Mnemonic	Mnemonic Description	Tool	Tool Description
V5	Five Volts	MSC	Multi Sensor Caliper
XTR1	Extra 1	MSC	Multi Sensor Caliper
AVRD	Avg Radius	MSC	Multi Sensor Caliper
BERR	Transmission Errors	MSC	Multi Sensor Caliper
DEVI	Deviation	MSC	Multi Sensor Caliper
DIAV	Avg Diameter	MSC	Multi Sensor Caliper
DIMN	Min Diameter	MSC	Multi Sensor Caliper
DIMX	Max Diameter	MSC	Multi Sensor Caliper
DMNA	Min Diameter Arm	MSC	Multi Sensor Caliper
DMXA	Max Diameter Arm	MSC	Multi Sensor Caliper
MSFC	MSF Conductivity	MSFL	Micro Spherically Focused Log
MSFF	MSF Resistivity Fltr	MSFL	Micro Spherically Focused Log
MSFI	MSFC-I (STD)	MSFL	Micro Spherically Focused Log
MSFO	ADC Offset	MSFL	Micro Spherically Focused Log
MSFR	MSF Resistivity	MSFL	Micro Spherically Focused Log
MSFT	Temperature	MSFL	Micro Spherically Focused Log
MSFV	Head Voltage	MSFL	Micro Spherically Focused Log
MSFV	MSFC-V (STD)	MSFL	Micro Spherically Focused Log
MTHK	Thickness	MTT	Magnetic Thickness
CUT1	High Pass 200 Hz	NSE	Noise Tool
CUT2	High Pass 600 Hz	NSE	Noise Tool
CUT3	High Pass 1000 Hz	NSE	Noise Tool
CUT4	High Pass 2000 Hz	NSE	Noise Tool
CUT5	High Pass 4000 Hz	NSE	Noise Tool
CUT6	High Pass 6000 Hz	NSE	Noise Tool
FLAG	Sample	NSE	Noise Tool
LHRO	Linear Porosity	NTT	Single Detector Neutron
NAPI	Neutron Counts	NTT	Single Detector Neutron
PFI1	Sensor 1	PFI	Production Fluid Imaging
PFI2	Sensor 2	PFI	Production Fluid Imaging
PFI3	Sensor 3	PFI	Production Fluid Imaging
ROT	Rotation	PFI	Production Fluid Imaging
SFLG	Sampling	PFI	Production Fluid Imaging
RFCW	Raw Flowmeter	PLT	Continuous Flowmeter
CWFM	Flowmeter	PLT	Continuous Flowmeter
MS	Master Sub	PLT	FlexStak Master Sub
FDNS	Fluid Density	PLT	Fluid Density
RFDN	Raw Fluid Density	PLT	Fluid Density
DTMP	Delta Temperature	PLT	Maxim Flowmeter FB/XY/Temp
RFCW	Raw Flowmeter	PLT	Maxim Flowmeter FB/XY/Temp

Tool Mnemonics

Mnemonic	Mnemonic Description	Tool	Tool Description
RTMP	Raw Temperature	PLT	Maxim Flowmeter FB/XY/Temp
TEMP	Temperature	PLT	Maxim Flowmeter FB/XY/Temp
UCLX	Uncorrected X Caliper	PLT	Maxim Flowmeter FB/XY/Temp
UCLY	Uncorrected Y Caliper	PLT	Maxim Flowmeter FB/XY/Temp
CAL2	Y Caliper	PLT	Maxim Flowmeter FB/XY/Temp
CALI	X Caliper	PLT	Maxim Flowmeter FB/XY/Temp
CWFM	Flowmeter	PLT	Maxim Flowmeter FB/XY/Temp
Gas	Gas	PLT	PL Analysis - Zonal
Oil	Oil	PLT	PL Analysis - Zonal
WATE	Water	PLT	PL Analysis - Zonal
DIA	Diameter	PLT	Production Fluid Imaging
MS	Master SUB	PLT	Production Logging Telemetry
MSBV	Master SUB BUSV	PLT	Production Logging Telemetry
MSHV	Master SUB HV	PLT	Production Logging Telemetry
DTMP	Delta Temperature	PLT	Temperature
RTMP	Raw Temperature	PLT	Temperature
TEMP	Temperature	PLT	Temperature
SERP	Enhanced Sigma	PND	Pulsed Neutron Decay
PBGF	Far Background	PND	Pulsed Neutron Decay
PBGN	Near Background	PND	Pulsed Neutron Decay
PBSR	Borehole Ratio	PND	Pulsed Neutron Decay
RBNF	Ratio Burst Near to Far	PND	Pulsed Neutron Decay
RFIC	Far Inelastic to Capture	PND	Pulsed Neutron Decay
RNBC	Burst Near to Capture	PND	Pulsed Neutron Decay
ROFF	Error in fit for Sigma Far	PND	Pulsed Neutron Decay
ROFN	Error in fit for Sigma Near	PND	Pulsed Neutron Decay
SGBF	Far Borehole Sigma	PND	Pulsed Neutron Decay
SGBN	Near Borehole Sigma	PND	Pulsed Neutron Decay
SGFF	Far Formation Sigma	PND	Pulsed Neutron Decay
SGFN	Near Formation Sigma	PND	Pulsed Neutron Decay
SIGD	Departure Sigma	PND	Pulsed Neutron Decay
SP1	Spectrum trace	PND	Pulsed Neutron Decay
ACPE	AACP Error	PND	Pulsed Neutron Decay
AUX2	Cartridge Temperature	PND	Pulsed Neutron Decay
BGF	Far Background counts	PND	Pulsed Neutron Decay
BGN	Near Background counts	PND	Pulsed Neutron Decay
CTSB	CTSB Errors	PND	Pulsed Neutron Decay
FAR	Far Counts	PND	Pulsed Neutron Decay
F1	Far Counts	PND	Pulsed Neutron Decay
FB1	Bin 7 of 1428 Hz Burst Far	PND	Pulsed Neutron Decay

Tool Mnemonics

Mnemonic	Mnemonic Description	Tool	Tool Description
FB2	Bin 8 of 1428 Hz Burst Far	PND	Pulsed Neutron Decay
FB3	Bin 9 of 1428 Hz Burst Far	PND	Pulsed Neutron Decay
FB4	Bin 10 of 1428 Hz Burst Far	PND	Pulsed Neutron Decay
FB5	Bin 11 of 1428 Hz Burst Far	PND	Pulsed Neutron Decay
FB6	Bin 12 of 1428 Hz Burst Far	PND	Pulsed Neutron Decay
FB7	Bin 13 of 1428 Hz Burst Far	PND	Pulsed Neutron Decay
FB8	Bin 14 of 1428 Hz Burst Far	PND	Pulsed Neutron Decay
FB9	Bin 15 of 1428 Hz Burst Far	PND	Pulsed Neutron Decay
FB10	Bin 16 of 1428 Hz Burst Far	PND	Pulsed Neutron Decay
FB91	Bin 1 of 1428 Hz Burst Far	PND	Pulsed Neutron Decay
FB92	Bin 2 of 1428 Hz Burst Far	PND	Pulsed Neutron Decay
FB93	Bin 3 of 1428 Hz Burst Far	PND	Pulsed Neutron Decay
FB94	Bin 4 of 1428 Hz Burst Far	PND	Pulsed Neutron Decay
FB95	Bin 5 of 1428 Hz Burst Far	PND	Pulsed Neutron Decay
FB96	Bin 6 of 1428 Hz Burst Far	PND	Pulsed Neutron Decay
FS1	Bin 7 of Servo Burst Far	PND	Pulsed Neutron Decay
FS2	Bin 8 of Servo Burst Far	PND	Pulsed Neutron Decay
FS3	Bin 9 of Servo Burst Far	PND	Pulsed Neutron Decay
FS4	Bin 10 of Servo Burst Far	PND	Pulsed Neutron Decay
FS5	Bin 11 of Servo Burst Far	PND	Pulsed Neutron Decay
FS6	Bin 12 of Servo Burst Far	PND	Pulsed Neutron Decay
FS7	Bin 13 of Servo Burst Far	PND	Pulsed Neutron Decay
FS8	Bin 14 of Servo Burst Far	PND	Pulsed Neutron Decay
FS9	Bin 15 of Servo Burst Far	PND	Pulsed Neutron Decay
FS10	Bin 16 of Servo Burst Far	PND	Pulsed Neutron Decay
FS91	Bin 1 of Servo Burst Far	PND	Pulsed Neutron Decay
FS92	Bin 2 of Servo Burst Far	PND	Pulsed Neutron Decay
FS93	Bin 3 of Servo Burst Far	PND	Pulsed Neutron Decay
FS94	Bin 4 of Servo Burst Far	PND	Pulsed Neutron Decay
FS95	Bin 5 of Servo Burst Far	PND	Pulsed Neutron Decay
FS96	Bin 6 of Servo Burst Far	PND	Pulsed Neutron Decay
HESC	High Energy Slope of Capture Spectra	PND	Pulsed Neutron Decay
HVFB	High Volt FB	PND	Pulsed Neutron Decay
MLR	Mult-Low Beam Current	PND	Pulsed Neutron Decay
NEAR	Near Count Rate	PND	Pulsed Neutron Decay
N1	Near Count Rate	PND	Pulsed Neutron Decay
NB1	Bin 7 of 1428 Hz Burst Near	PND	Pulsed Neutron Decay
NB2	Bin 8 of 1428 Hz Burst Near	PND	Pulsed Neutron Decay
NB3	Bin 9 of 1428 Hz Burst Near	PND	Pulsed Neutron Decay
NB4	Bin 10 of 1428 Hz Burst Near	PND	Pulsed Neutron Decay



Tool Mnemonics

Mnemonic	Mnemonic Description	Tool	Tool Description
NB5	Bin 11 of 1428 Hz Burst Near	PND	Pulsed Neutron Decay
NB6	Bin 12 of 1428 Hz Burst Near	PND	Pulsed Neutron Decay
NB7	Bin 13 of 1428 Hz Burst Near	PND	Pulsed Neutron Decay
NB8	Bin 14 of 1428 Hz Burst Near	PND	Pulsed Neutron Decay
NB9	Bin 15 of 1428 Hz Burst Near	PND	Pulsed Neutron Decay
NB10	Bin 16 of 1428 Hz Burst Near	PND	Pulsed Neutron Decay
NB91	Bin 1 of 1428 Hz Burst Near	PND	Pulsed Neutron Decay
NB92	Bin 2 of 1428 Hz Burst Near	PND	Pulsed Neutron Decay
NB93	Bin 3 of 1428 Hz Burst Near	PND	Pulsed Neutron Decay
NB94	Bin 4 of 1428 Hz Burst Near	PND	Pulsed Neutron Decay
NB95	Bin 5 of 1428 Hz Burst Near	PND	Pulsed Neutron Decay
NB96	Bin 6 of 1428 Hz Burst Near	PND	Pulsed Neutron Decay
NBPS	Narrow Burst Pulse Shape	PND	Pulsed Neutron Decay
NPUL	# of Narrow Burst firings per half foot	PND	Pulsed Neutron Decay
NS1	Bin 7 of Servo Burst Near	PND	Pulsed Neutron Decay
NS2	Bin 8 of Servo Burst Near	PND	Pulsed Neutron Decay
NS3	Bin 9 of Servo Burst Near	PND	Pulsed Neutron Decay
NS4	Bin 10 of Servo Burst Near	PND	Pulsed Neutron Decay
NS5	Bin 11 of Servo Burst Near	PND	Pulsed Neutron Decay
NS6	Bin 12 of Servo Burst Near	PND	Pulsed Neutron Decay
NS7	Bin 13 of Servo Burst Near	PND	Pulsed Neutron Decay
NS8	Bin 14 of Servo Burst Near	PND	Pulsed Neutron Decay
NS9	Bin 15 of Servo Burst Near	PND	Pulsed Neutron Decay
NS10	Bin 16 of Servo Burst Near	PND	Pulsed Neutron Decay
NS91	Bin 1 of Servo Burst Near	PND	Pulsed Neutron Decay
NS92	Bin 2 of Servo Burst Near	PND	Pulsed Neutron Decay
NS93	Bin 3 of Servo Burst Near	PND	Pulsed Neutron Decay
NS94	Bin 4 of Servo Burst Near	PND	Pulsed Neutron Decay
NS95	Bin 5 of Servo Burst Near	PND	Pulsed Neutron Decay
NS96	Bin 6 of Servo Burst Near	PND	Pulsed Neutron Decay
PRFS	Servo Firing Rate	PND	Pulsed Neutron Decay
PWM	High Volt PWM	PND	Pulsed Neutron Decay
QUAL	Output Quality	PND	Pulsed Neutron Decay
RATI	Ratio Capture	PND	Pulsed Neutron Decay
RPC	Replenish Current	PND	Pulsed Neutron Decay
RPL	Ripple Avg	PND	Pulsed Neutron Decay
SB11	1428 Hz Spectral Ch 1 Bin 1	PND	Pulsed Neutron Decay
SB12	1428 Hz Spectral Ch 1 Bin 2	PND	Pulsed Neutron Decay
SB13	1428 Hz Spectral Ch 1 Bin 3	PND	Pulsed Neutron Decay
SB14	1428 Hz Spectral Ch 1 Bin 4	PND	Pulsed Neutron Decay

Tool Mnemonics

Mnemonic	Mnemonic Description	Tool	Tool Description
SB15	1428 Hz Spectral Ch 1 Bin 5	PND	Pulsed Neutron Decay
SB21	1428 Hz Spectral Ch 2 Bin 1	PND	Pulsed Neutron Decay
SB22	1428 Hz Spectral Ch 2 Bin 2	PND	Pulsed Neutron Decay
SB23	1428 Hz Spectral Ch 2 Bin 3	PND	Pulsed Neutron Decay
SB24	1428 Hz Spectral Ch 2 Bin 4	PND	Pulsed Neutron Decay
SB25	1428 Hz Spectral Ch 2 Bin 5	PND	Pulsed Neutron Decay
SB31	1428 Hz Spectral Ch 3 Bin 1	PND	Pulsed Neutron Decay
SB32	1428 Hz Spectral Ch 3 Bin 2	PND	Pulsed Neutron Decay
SB33	1428 Hz Spectral Ch 3 Bin 3	PND	Pulsed Neutron Decay
SB34	1428 Hz Spectral Ch 3 Bin 4	PND	Pulsed Neutron Decay
SB35	1428 Hz Spectral Ch 3 Bin 5	PND	Pulsed Neutron Decay
SB41	1428 Hz Spectral Ch 4 Bin 1	PND	Pulsed Neutron Decay
SB42	1428 Hz Spectral Ch 4 Bin 2	PND	Pulsed Neutron Decay
SB43	1428 Hz Spectral Ch 4 Bin 3	PND	Pulsed Neutron Decay
SB44	1428 Hz Spectral Ch 4 Bin 4	PND	Pulsed Neutron Decay
SB45	1428 Hz Spectral Ch 4 Bin 5	PND	Pulsed Neutron Decay
SB4Q	Ratio of SB45 to Output Quality	PND	Pulsed Neutron Decay
SIGF	Sigma Far	PND	Pulsed Neutron Decay
SIGN	Sigma Near	PND	Pulsed Neutron Decay
SPUL	# of Servo Burst Firings per half foot	PND	Pulsed Neutron Decay
SRC	Source Current	PND	Pulsed Neutron Decay
SS11	Servo Spectral Ch 1 Bin 1	PND	Pulsed Neutron Decay
SS12	Servo Spectral Ch 1 Bin 2	PND	Pulsed Neutron Decay
SS13	Servo Spectral Ch 1 Bin 3	PND	Pulsed Neutron Decay
SS14	Servo Spectral Ch 1 Bin 4	PND	Pulsed Neutron Decay
SS15	Servo Spectral Ch 1 Bin 5	PND	Pulsed Neutron Decay
SS21	Servo Spectral Ch 2 Bin 1	PND	Pulsed Neutron Decay
SS22	Servo Spectral Ch 2 Bin 2	PND	Pulsed Neutron Decay
SS23	Servo Spectral Ch 2 Bin 3	PND	Pulsed Neutron Decay
SS24	Servo Spectral Ch 2 Bin 4	PND	Pulsed Neutron Decay
SS25	Servo Spectral Ch 2 Bin 5	PND	Pulsed Neutron Decay
SS31	Servo Spectral Ch 3 Bin 1	PND	Pulsed Neutron Decay
SS32	Servo Spectral Ch 3 Bin 2	PND	Pulsed Neutron Decay
SS33	Servo Spectral Ch 3 Bin 3	PND	Pulsed Neutron Decay
SS34	Servo Spectral Ch 3 Bin 4	PND	Pulsed Neutron Decay
SS35	Servo Spectral Ch 3 Bin 5	PND	Pulsed Neutron Decay
SS41	Servo Spectral Ch 4 Bin 1	PND	Pulsed Neutron Decay
SS42	Servo Spectral Ch 4 Bin 2	PND	Pulsed Neutron Decay
SS43	Servo Spectral Ch 4 Bin 3	PND	Pulsed Neutron Decay
SS44	Servo Spectral Ch 4 Bin 4	PND	Pulsed Neutron Decay



Tool Mnemonics

Mnemonic	Mnemonic Description	Tool	Tool Description
SS45	Servo Spectral Ch 4 Bin 5	PND	Pulsed Neutron Decay
POD	Pad Orientation Tool	POT	Pad Orientation Tool
DQGP	Delta Quartz Pressure	QPG	Quartzdyne Pressure
QGPR	Quartz Pressure	QPG	Quartzdyne Pressure
QTMP	Quartz Temperature	QPG	Quartzdyne Pressure
RQGP	Raw Quartz Pressure	QPG	Quartzdyne Pressure
RTMP	Raw Temperature	QPG	Quartzdyne Pressure
ETFI	Time From Injection	RTE	Tracer Ejector
DT	Compressional Delta Time	Sector Bond® tool	Fast Formation Sector Bond
INCL	Inclination	Sector Bond tool	Fast Formation Sector Bond
ReIB	Relative Bearing	Sector Bond tool	Fast Formation Sector Bond
TT3F	Travel Time 3 ft	Sector Bond tool	Fast Formation Sector Bond
TT4	Raw TT	Sector Bond tool	Fast Formation Sector Bond
TT5F	Travel Time 5 ft	Sector Bond tool	Fast Formation Sector Bond
TTC	Travel Time CAL	Sector Bond tool	Fast Formation Sector Bond
TTS1	Travel Time SEC1	Sector Bond tool	Fast Formation Sector Bond
TTS2	Travel Time SEC2	Sector Bond tool	Fast Formation Sector Bond
TTS3	Travel Time SEC3	Sector Bond tool	Fast Formation Sector Bond
TTS4	Travel Time SEC4	Sector Bond tool	Fast Formation Sector Bond
TTS5	Travel Time SEC5	Sector Bond tool	Fast Formation Sector Bond
TTS6	Travel Time SEC6	Sector Bond tool	Fast Formation Sector Bond
TTS7	Travel Time SEC7	Sector Bond tool	Fast Formation Sector Bond
TTS8	Travel Time SEC8	Sector Bond tool	Fast Formation Sector Bond
VAMP	Variable Energy	Sector Bond tool	Fast Formation Sector Bond
VDL1	Variable Density 3 ft	Sector Bond tool	Fast Formation Sector Bond
VDL2	Variable Density 5 ft	Sector Bond tool	Fast Formation Sector Bond
XY1	XY Signature 3 ft	Sector Bond tool	Fast Formation Sector Bond
XY2	XY Signature 5 ft	Sector Bond tool	Fast Formation Sector Bond
AAVG	Avg Energy	Sector Bond tool	Fast Formation Sector Bond
AM3F	Amplitude 3 ft	Sector Bond tool	Fast Formation Sector Bond
AM5F	Amplitude 5 ft	Sector Bond tool	Fast Formation Sector Bond
AMAX	Max Energy	Sector Bond tool	Fast Formation Sector Bond
AMIN	Min Energy	Sector Bond tool	Fast Formation Sector Bond
AMP1	Sector #1	Sector Bond tool	Fast Formation Sector Bond
AMP2	Sector #2	Sector Bond tool	Fast Formation Sector Bond
AMP3	Sector #3	Sector Bond tool	Fast Formation Sector Bond
Amp4	Raw Amp	Sector Bond tool	Fast Formation Sector Bond
AMP4	Sector #4	Sector Bond tool	Fast Formation Sector Bond
AMP5	Sector #5	Sector Bond tool	Fast Formation Sector Bond
AMP6	Sector #6	Sector Bond tool	Fast Formation Sector Bond

Tool Mnemonics

Mnemonic	Mnemonic Description	Tool	Tool Description
AMP7	Sector #7	Sector Bond tool	Fast Formation Sector Bond
AMP8	Sector #8	Sector Bond tool	Fast Formation Sector Bond
AMPC	Amplitude Cal	Sector Bond tool	Fast Formation Sector Bond
ATTN	Attenuation	Sector Bond tool	Fast Formation Sector Bond
BI	Bond Index	Sector Bond tool	Fast Formation Sector Bond
CS	Compressive Strength	Sector Bond tool	Fast Formation Sector Bond
AAVG	Avg Energy	Sector Bond tool	Sector Bond
AM3F	Amplitude 3 ft	Sector Bond tool	Sector Bond
AM5F	Amplitude 5 ft	Sector Bond tool	Sector Bond
AMAX	Max Energy	Sector Bond tool	Sector Bond
AMIN	Min Energy	Sector Bond tool	Sector Bond
AMP1	Sector #1	Sector Bond tool	Sector Bond
AMP2	Sector #2	Sector Bond tool	Sector Bond
AMP3	Sector #3	Sector Bond tool	Sector Bond
AMP4	Sector #4	Sector Bond tool	Sector Bond
Amp4	Raw Amp	Sector Bond tool	Sector Bond
AMP5	Sector #5	Sector Bond tool	Sector Bond
AMP6	Sector #6	Sector Bond tool	Sector Bond
AMP7	Sector #7	Sector Bond tool	Sector Bond
AMP8	Sector #8	Sector Bond tool	Sector Bond
AMPC	Amplitude Cal	Sector Bond tool	Sector Bond
ATTN	Attenuation	Sector Bond tool	Sector Bond
BI	Bond Index	Sector Bond tool	Sector Bond
CS	Compressive Strength	Sector Bond tool	Sector Bond
DT	Compressional Delta Time	Sector Bond tool	Sector Bond
INCL	Inclination	Sector Bond tool	Sector Bond
ReIB	Relative Bearing	Sector Bond tool	Sector Bond
TT3F	Travel Time 3 ft	Sector Bond tool	Sector Bond
TT4	Raw Travel Time	Sector Bond tool	Sector Bond
TT5F	Travel Time 5 ft	Sector Bond tool	Sector Bond
TTC	Travel Time CAL	Sector Bond tool	Sector Bond
TTS1	Travel Time SEC1	Sector Bond tool	Sector Bond
TTS2	Travel Time SEC2	Sector Bond tool	Sector Bond
TTS3	Travel Time SEC3	Sector Bond tool	Sector Bond
TTS4	Travel Time SEC4	Sector Bond tool	Sector Bond
TTS5	Travel Time SEC5	Sector Bond tool	Sector Bond
TTS6	Travel Time SEC6	Sector Bond tool	Sector Bond
TTS7	Travel Time SEC7	Sector Bond tool	Sector Bond
TTS8	Travel Time SEC8	Sector Bond tool	Sector Bond
VAMP	Variable Energy	Sector Bond tool	Sector Bond



Tool Mnemonics

Mnemonic	Mnemonic Description	Tool	Tool Description
VDL1	Variable Density 3 ft	Sector Bond tool	Sector Bond
VDL2	Variable Density 5 ft	Sector Bond tool	Sector Bond
XY1	XY Signature 3 ft	Sector Bond tool	Sector Bond
XY2	XY Signature 5 ft	Sector Bond tool	Sector Bond
ACCX	X Axis Accelerometer	SED	Six Electrode Dipmeter
ACCY	Y Axis Accelerometer	SED	Six Electrode Dipmeter
ACCZ	Z Axis Accelerometer	SED	Six Electrode Dipmeter
ADZ	A/D Zero	SED	Six Electrode Dipmeter
BHVF	Borehole Volume Flag	SED	Six Electrode Dipmeter
BHVL	Borehole Volume	SED	Six Electrode Dipmeter
CAL1	Caliper 1	SED	Six Electrode Dipmeter
CAL2	Caliper 2	SED	Six Electrode Dipmeter
CAL3	Caliper 3	SED	Six Electrode Dipmeter
CAL4	Caliper 4	SED	Six Electrode Dipmeter
CAL5	Caliper 5	SED	Six Electrode Dipmeter
CAL6	Caliper 6	SED	Six Electrode Dipmeter
CTEM	Temperature	SED	Six Electrode Dipmeter
DIA1	Diameter 1	SED	Six Electrode Dipmeter
DIA2	Diameter 2	SED	Six Electrode Dipmeter
DIA3	Diameter 3	SED	Six Electrode Dipmeter
DREF	Develco 5V Reference	SED	Six Electrode Dipmeter
DXTM	Time From Computer	SED	Six Electrode Dipmeter
HAZI	Hole Azimuth	SED	Six Electrode Dipmeter
HDEV	Hole Deviation	SED	Six Electrode Dipmeter
HV	Head Volts	SED	Six Electrode Dipmeter
MAGX	X Axis Magnetometer	SED	Six Electrode Dipmeter
MAGY	Y Axis Magnetometer	SED	Six Electrode Dipmeter
MAGZ	Z Axis Magnetometer	SED	Six Electrode Dipmeter
P1AZ	Pad 1 Azimuth	SED	Six Electrode Dipmeter
PDH1	Pad 1 High Gain	SED	Six Electrode Dipmeter
PDH2	Pad 2 High Gain	SED	Six Electrode Dipmeter
PDH3	Pad 3 High Gain	SED	Six Electrode Dipmeter
PDH4	Pad 4 High Gain	SED	Six Electrode Dipmeter
PDH5	Pad 5 High Gain	SED	Six Electrode Dipmeter
PDH6	Pad 6 High Gain	SED	Six Electrode Dipmeter
PDL1	Pad 1 Low Gain	SED	Six Electrode Dipmeter
PDL2	Pad 2 Low Gain	SED	Six Electrode Dipmeter
PDL3	Pad 3 Low Gain	SED	Six Electrode Dipmeter
PDL4	Pad 4 Low Gain	SED	Six Electrode Dipmeter
PDL5	Pad 5 Low Gain	SED	Six Electrode Dipmeter

Tool Mnemonics

Mnemonic	Mnemonic Description	Tool	Tool Description
PDL6	Pad 6 Low Gain	SED	Six Electrode Dipmeter
PDLV	Pad Voltage	SED	Six Electrode Dipmeter
PP	Pad Pressure	SED	Six Electrode Dipmeter
ROT	Rotation	SED	Six Electrode Dipmeter
TOTG	Total G Field	SED	Six Electrode Dipmeter
TOTH	Total H Field	SED	Six Electrode Dipmeter
ZACC	Z Acceleration	SED	Six Electrode Dipmeter
DC10	Servo 10 Time On	SFT	Selective Formation Tester
DC9	Servo 9 Time Off	SFT	Selective Formation Tester
DMIN	Time Of Day - min	SFT	Selective Formation Tester
DSEC	Time Of Day - s	SFT	Selective Formation Tester
DSVO	Starting Volume	SFT	Selective Formation Tester
DVOL	Digital Pretest Volume	SFT	Selective Formation Tester
ETIM	Elapsed Time	SFT	Selective Formation Tester
HOUR	Time Of Day - Hours	SFT	Selective Formation Tester
LCAL	Log Cal (Debug)	SFT	Selective Formation Tester
LZER	Log Zero (Debug)	SFT	Selective Formation Tester
MOTR	Motor Voltage	SFT	Selective Formation Tester
OSGP	Sample Pressure x1	SFT	Selective Formation Tester
PADA	Pad Pressure Absolute	SFT	Selective Formation Tester
PADP	Pad Pressure	SFT	Selective Formation Tester
QDIG	Digital QPG Pressure	SFT	Selective Formation Tester
QONE	QPG Pressure x1	SFT	Selective Formation Tester
QPGP	QPG Pressure	SFT	Selective Formation Tester
QPCT	QPG Temperature	SFT	Selective Formation Tester
QPRP	QPG Pressure (Raw)	SFT	Selective Formation Tester
QPRT	QPG Temperature (Raw)	SFT	Selective Formation Tester
RATE	Pretest Rate	SFT	Selective Formation Tester
RSGP	Raw Sample Pressure	SFT	Selective Formation Tester
SGP	Sample Pressure	SFT	Selective Formation Tester
SGPP	Digital Sample Pressure	SFT	Selective Formation Tester
STCC	Pretest Rate (Debug)	SFT	Selective Formation Tester
STOC	SMPL Tank Current	SFT	Selective Formation Tester
SYSP	System Pressure	SFT	Selective Formation Tester
TEMP	Temperature	SFT	Selective Formation Tester
VOL	Volume	SFT	Selective Formation Tester
GAPI	GAPI	SGR	Spectral Gamma Ray
GCPS	Gross Gamma CPS	SGR	Spectral Gamma Ray
GRS	Stripped Gamma Ray	SGR	Spectral Gamma Ray
KCPS	Potassium CPS	SGR	Spectral Gamma Ray



Tool Mnemonics

Mnemonic	Mnemonic Description	Tool	Tool Description
POTA	Potassium	SGR	Spectral Gamma Ray
RFAC	SGR R factor	SGR	Spectral Gamma Ray
TCPS	Thorium CPS	SGR	Spectral Gamma Ray
TH/K	Thorium/Potassium	SGR	Spectral Gamma Ray
TH/U	Thorium/Uranium	SGR	Spectral Gamma Ray
THOR	Thorium	SGR	Spectral Gamma Ray
U/K	Uranium/Potassium	SGR	Spectral Gamma Ray
U/KT	Uranium/(Potassium + Thorium)	SGR	Spectral Gamma Ray
UCPS	Uranium CPS	SGR	Spectral Gamma Ray
URAN	Uranium	SGR	Spectral Gamma Ray
FGAP	Flt. GAPI	SGR	Spectral Gamma Ray
FGCS	Flt. Gamma CPS	SGR	Spectral Gamma Ray
FKCS	Flt. Potassium CPS	SGR	Spectral Gamma Ray
FPOT	Flt. Potassium	SGR	Spectral Gamma Ray
FTCS	Flt. Thorium CPS	SGR	Spectral Gamma Ray
FTHR	Flt. Thorium	SGR	Spectral Gamma Ray
FUCS	Flt. Uranium CPS	SGR	Spectral Gamma Ray
FURA	Flt. Uranium	SGR	Spectral Gamma Ray
GAPI	GAPI	SGR	Spectral Gamma Ray
GCPS	Gross Gamma CPS	SGR	Spectral Gamma Ray
GRS	Stripped Gamma Ray	SGR	Spectral Gamma Ray
HVG	High Voltage Control	SGR	Spectral Gamma Ray
KCPS	Potassium CPS	SGR	Spectral Gamma Ray
KPK.	Potassium Peak	SGR	Spectral Gamma Ray
OFL1	Output Flag 1	SGR	Spectral Gamma Ray
POTA	Potassium	SGR	Spectral Gamma Ray
QFL4	Quality Flag 4	SGR	Spectral Gamma Ray
QFL5	Quality Flag 5	SGR	Spectral Gamma Ray
RFAC	SGR R factor	SGR	Spectral Gamma Ray
TCPS	Thorium CPS	SGR	Spectral Gamma Ray
TEMP	Temperature	SGR	Spectral Gamma Ray
TH/K	Thorium/Potassium	SGR	Spectral Gamma Ray
TH/U	Thorium/Uranium	SGR	Spectral Gamma Ray
THOR	Thorium	SGR	Spectral Gamma Ray
TPK.	Thorium Peak	SGR	Spectral Gamma Ray
U/K	Uranium/Potassium	SGR	Spectral Gamma Ray
U/KT	Uranium/(Potassium + Thorium)	SGR	Spectral Gamma Ray
UCPS	Uranium CPS	SGR	Spectral Gamma Ray
UPFO	Upslope Flag 0	SGR	Spectral Gamma Ray
UPF1	Upslope Flag 1	SGR	Spectral Gamma Ray

Tool Mnemonics

Mnemonic	Mnemonic Description	Tool	Tool Description
UPF2	Upslope Flag 2	SGR	Spectral Gamma Ray
UPF3	Upslope Flag 3	SGR	Spectral Gamma Ray
UPK	Uranium Peak	SGR	Spectral Gamma Ray
URAN	Uranium	SGR	Spectral Gamma Ray
100V	Head Voltage	SGR	Spectral Gamma Ray
5V	5 Volt Reference	SGR	Spectral Gamma Ray
DAC	DAC Output	SGR	Spectral Gamma Ray
SP0	SP0	SP	Spontaneous Potential
SP	SP	SP	Spontaneous Potential
DPSS	Density Porosity (SS)	SPeD	Spectral Pe Density
DRHO	Density Correction	SPeD	Spectral Pe Density
FSSM	SS Fresh Smeared	SPeD	Spectral Pe Density
GLS	LS Gain Index	SPeD	Spectral Pe Density
GSS	SS Gain Index	SPeD	Spectral Pe Density
HDPH	HRes DPHI	SPeD	Spectral Pe Density
LCMP	LS Compton CPS	SPeD	Spectral Pe Density
LLPE	LS Lower Pe CPS	SPeD	Spectral Pe Density
LRPE	LS Res. Match Pe	SPeD	Spectral Pe Density
LSPK	LS Cesium Peak	SPeD	Spectral Pe Density
LSRS	LS Resolution	SPeD	Spectral Pe Density
LSUC	LS Barite CPS	SPeD	Spectral Pe Density
LTCP	Total LS CPS	SPeD	Spectral Pe Density
LUPE	LS Upper Pe CPS	SPeD	Spectral Pe Density
NILS	LS Noise Index	SPeD	Spectral Pe Density
NISS	SS Noise Index	SPeD	Spectral Pe Density
PEC	Pe Correction	SPeD	Spectral Pe Density
PEF	Photoelectric Effect	SPeD	Spectral Pe Density
RHOB	Bulk Density	SPeD	Spectral Pe Density
RHOS	HRes Bulk Density	SPeD	Spectral Pe Density
RLS	LS Gain	SPeD	Spectral Pe Density
RSS	SS Gain	SPeD	Spectral Pe Density
SCMP	SS Compton CPS	SPeD	Spectral Pe Density
SLPE	SS Lower Pe CPS	SPeD	Spectral Pe Density
SPEF	SS Pe	SPeD	Spectral Pe Density
SSPK	SS Cesium Peak	SPeD	Spectral Pe Density
SSRS	SS Resolution	SPeD	Spectral Pe Density
SSUC	SS Barite CPS	SPeD	Spectral Pe Density
STCP	Total SS CPS	SPeD	Spectral Pe Density
STME	SPeD Delta Time	SPeD	Spectral Pe Density
SUPE	SS Upper Pe CPS	SPeD	Spectral Pe Density



Tool Mnemonics

Mnemonic	Mnemonic Description	Tool	Tool Description
TEMP	Temperature	SPeD	Spectral Pe Density
UDDF	Uncorrected Density Diff	SPeD	Spectral Pe Density
UMA	Matrix Volumetric	SPeD	Spectral Pe Density
UPHI	Density Porosity (USR)	SPeD	Spectral Pe Density
URHB	Uncorrected Bulk Density	SPeD	Spectral Pe Density
USRB	Uncorrected SS RhoB	SPeD	Spectral Pe Density
BSSM	SS Barite Smeared	SPeD	Spectral Pe Density
DDIF	Density Difference	SPeD	Spectral Pe Density
DPDL	Density Porosity (DL)	SPeD	Spectral Pe Density
DPHI	Density Porosity (LS)	SPeD	Spectral Pe Density
DP1R	10K Deep R	STI	Simultaneous Triple Induction
DP1X	10K Deep X	STI	Simultaneous Triple Induction
DP2R	20K Deep R	STI	Simultaneous Triple Induction
DP2X	20K Deep X	STI	Simultaneous Triple Induction
DP4R	40K Deep R	STI	Simultaneous Triple Induction
DP4X	40K Deep X	STI	Simultaneous Triple Induction
DVC1	10K Deep STI Cond.	STI	Simultaneous Triple Induction
DVC2	20K Deep STI Cond.	STI	Simultaneous Triple Induction
DVC4	40K Deep STI Cond.	STI	Simultaneous Triple Induction
DVR1	10K Deep STI	STI	Simultaneous Triple Induction
DVR2	20K Deep STI	STI	Simultaneous Triple Induction
DVR4	40K Deep STI	STI	Simultaneous Triple Induction
HDV	Head Voltage	STI	Simultaneous Triple Induction
MD1R	10K Medium R	STI	Simultaneous Triple Induction
MD1X	10K Medium X	STI	Simultaneous Triple Induction
MD2R	20K Medium R	STI	Simultaneous Triple Induction
MD2X	20K Medium X	STI	Simultaneous Triple Induction
MD4R	40K Medium R	STI	Simultaneous Triple Induction
MD4X	40K Medium X	STI	Simultaneous Triple Induction
MVC1	10K Medium STI Cond.	STI	Simultaneous Triple Induction
MVC2	20K Medium STI Cond.	STI	Simultaneous Triple Induction
MVC4	40K Medium STI Cond.	STI	Simultaneous Triple Induction
MVR1	10K Medium STI	STI	Simultaneous Triple Induction
MVR2	20K Medium STI	STI	Simultaneous Triple Induction
MVR4	40K Medium STI	STI	Simultaneous Triple Induction
RD1R	RCAL R	STI	Simultaneous Triple Induction
RD1X	RCAL X	STI	Simultaneous Triple Induction
RWA	RWA	STI	Simultaneous Triple Induction
SFL4	SFL 4 FT Resolution	STI	Simultaneous Triple Induction
SFLE	SFL E (RAW)	STI	Simultaneous Triple Induction

Tool Mnemonics

Mnemonic	Mnemonic Description	Tool	Tool Description
SFLI	SFL I (RAW)	STI	Simultaneous Triple Induction
SFLR	SFL Resistivity	STI	Simultaneous Triple Induction
SFLU	SFL Raw Resistivity	STI	Simultaneous Triple Induction
TEMP	Temperature	STI	Simultaneous Triple Induction
XD1R	XCAL R	STI	Simultaneous Triple Induction
XD1X	XCAL X	STI	Simultaneous Triple Induction
ZD1R	Zero R	STI	Simultaneous Triple Induction
ZD1X	Zero X	STI	Simultaneous Triple Induction
DTEN	Delta Tension	TEN	Tension
TENS	Tension	TEN	Tension
ACCX	X Accelerometer	WCS	Wireline Communication System
ACCY	Y Accelerometer	WCS	Wireline Communication System
ACCZ	Z Accelerometer	WCS	Wireline Communication System
INCL	Inclination	WCS	Wireline Communication System
ITMP	Internal Temp	WCS	Wireline Communication System
MDAC	Modem DAC	WCS	Wireline Communication System
MFRQ	Modem Frequency	WCS	Wireline Communication System
MVCO	Modem VCO	WCS	Wireline Communication System
OVPC	OV Protect Current	WCS	Wireline Communication System
PRIN	Post Reg Input	WCS	Wireline Communication System
RELB	Relative Bearing	WCS	Wireline Communication System
WCSS	WCS Status	WCS	Wireline Communication System
WITB	WCS ITB Voltage	WCS	Wireline Communication System
WTI	Tool Current	WCS	Wireline Communication System
RWTH	Raw Water Holdup	WHU	Water Holdup
WGWH	Water-Gas Holdup	WHU	Water Holdup
WOWH	Water-Oil Holdup	WHU	Water Holdup
MBVI	Bulk Volume Irreducible	NMRT	Nuclear Magnetic Resonance Tool
MFFI	Free Fluid Index	NMRT	Nuclear Magnetic Resonance Tool
MPHI	Effective Porosity	NMRT	Nuclear Magnetic Resonance Tool
MCBW	Clay Bound Water	NMRT	Nuclear Magnetic Resonance Tool
MPHS	Total Porosity	NMRT	Nuclear Magnetic Resonance Tool
MCTF	Free Fluid Index Cutoff	NMRT	Nuclear Magnetic Resonance Tool
MCTC	Clay Bound Water Cutoff	NMRT	Nuclear Magnetic Resonance Tool
PM90	Permeability (Murtskovkin 90% Porosity)	NMRT	Nuclear Magnetic Resonance Tool
PM98	Permeability (Murtskovkin 98% Porosity)	NMRT	Nuclear Magnetic Resonance Tool
PMT	Permeability (Timur)	NMRT	Nuclear Magnetic Resonance Tool
PMTC	Permeability (Timur/Coates)	NMRT	Nuclear Magnetic Resonance Tool
PMK	Permeability (T2 model)	NMRT	Nuclear Magnetic Resonance Tool
TM90	T2 - 90% Porosity	NMRT	Nuclear Magnetic Resonance Tool



Tool Mnemonics

Mnemonic	Mnemonic Description	Tool	Tool Description
TM94	T2 - 94% Porosity	NMRT	Nuclear Magnetic Resonance Tool
TM98	T2 - 98% Porosity	NMRT	Nuclear Magnetic Resonance Tool
BP1	Bin Porosity 2-4 ms	NMRT	Nuclear Magnetic Resonance Tool
BP2	Bin Porosity 4-8 ms	NMRT	Nuclear Magnetic Resonance Tool
BP3	Bin Porosity 8-16 ms	NMRT	Nuclear Magnetic Resonance Tool
BP4	Bin Porosity 16-32 ms	NMRT	Nuclear Magnetic Resonance Tool
BP5	Bin Porosity 32-64 ms	NMRT	Nuclear Magnetic Resonance Tool
BP6	Bin Porosity 64-128 ms	NMRT	Nuclear Magnetic Resonance Tool
BP7	Bin Porosity 128-254 ms	NMRT	Nuclear Magnetic Resonance Tool
BP8	Bin Porosity 254-512 ms	NMRT	Nuclear Magnetic Resonance Tool
BP9	Bin Porosity 512-1024 ms	NMRT	Nuclear Magnetic Resonance Tool
BP10	Bin Porosity 1024-2048 ms	NMRT	Nuclear Magnetic Resonance Tool
SPDP	T2 Spectrum	NMRT	Nuclear Magnetic Resonance Tool
SPIP	Cumulative Spectrum T2	NMRT	Nuclear Magnetic Resonance Tool
TFPP	First Point T2	NMRT	Nuclear Magnetic Resonance Tool
TLPP	Last Point T2	NMRT	Nuclear Magnetic Resonance Tool
TSPP	Logarithmic Step of T2 Spectrum	NMRT	Nuclear Magnetic Resonance Tool
NPTP	Number of Points of T2 Spectrum	NMRT	Nuclear Magnetic Resonance Tool
ALPP	Regularization Parameter	NMRT	Nuclear Magnetic Resonance Tool
SPPP	Incremental Spectrum T2	NMRT	Nuclear Magnetic Resonance Tool
TFPX	First Point T2 of Incr. Spectrum	NMRT	Nuclear Magnetic Resonance Tool
TSPX	Logarithmic Step of Incr. Spectrum	NMRT	Nuclear Magnetic Resonance Tool
NPTX	Number of Points of Incr. Spectrum	NMRT	Nuclear Magnetic Resonance Tool
SPDC	T2 Spectrum	NMRT	Nuclear Magnetic Resonance Tool
SPIC	Cumulative Spectrum Clay	NMRT	Nuclear Magnetic Resonance Tool
SPPC	Incremental Spectrum Clay	NMRT	Nuclear Magnetic Resonance Tool
TFPC	First Point T2 of Clay Spectrum	NMRT	Nuclear Magnetic Resonance Tool
TLPC	Last Point T2 of Clay Spectrum	NMRT	Nuclear Magnetic Resonance Tool
TSPC	Logarithmic Step of Clay Spectrum	NMRT	Nuclear Magnetic Resonance Tool
TSPC	Logarithmic Step of Clay Spectrum	NMRT	Nuclear Magnetic Resonance Tool
NPTC	Number of Points Clay Spectrum	NMRT	Nuclear Magnetic Resonance Tool
ALPC	Regularization Parameter (clay)	NMRT	Nuclear Magnetic Resonance Tool