Gamma – Gamma Calibration Data

VALDOSTA TEST WELL FOR USE W/ 12-2-76 CHART

CORE DEPTH	CORRECTED DEPTH	ρ_g	ARITH ρ_b	ϕ_T	ϕ_e	LOG COUNTS
406	402.5	2.78	2.74	2.28	1.6	793
590.5	589	2.81	2.25	31.2	28.1	1449
597	597	2.73	2.16	32.5	32.3	1851
604	604	2.81	2.57	13.2	8.68	1012
754.5	751.	2.71	2.19	30.6	16.6	1685
760	759.5	2.72	2.16	32.5	30.0	1677
761	761	2.71	2.14	32.2	30.2	1778
907.5	907.5	2.73	2.13	34.8	32.1	1793
911	911.5	2.75	2.09	37.6	34.6	1891
916	916	2.72	2.06	37.8	37.6	1971

ϕ_T & ϕ_e & ρ_g determined from core samples in the HYDROLOGIC LAB IN DENVER

ρ_b calculated from ρ_g & ϕ_T

COUNTS/SECOND from Gamma-Gamma Stationary log on 2-15-77

ATLANTA CALIBRATION PITS

ARITH ρ_b	LOG COUNTS
~~3.6~~	~~750~~ ✓
2.4	1250
1.6	3900
~~1.0~~	~~10,000~~ ✓

Hydrologic Laboratory
Lakewood, Colorado

JRG
HBC
HGG
HEG X
WRS
Suspense
Action

Specific gravity determinations for samples 75GA1-13

JUN 19 1975

	Laboratory sample number	Depth (ft)	ρ_b	Specific gravity of solids gm/cc (ρ_{ma} MATRIX DENSITY)	ϕ_e		
1000°	75GA2	406	~~2.48~~ 2.75 2.74	2.78	1.63		4.4
1175°	3	590.5	2.30	2.81	28.1	589	3.9%
1500°	4	597	2.17	2.73	32.3		
1100	5	604	2.65	2.81	8.68	602	5.7%
2200	6	754.5	2.43 & 2.19	2.71	16.6		
	7	760		2.72	30	758	17%
	8	761		2.71	30.2		
	9	907.5		2.73	32.1		
	10	911		2.75	34.6		
	11	916		2.72	37.6	914	23%
	12	1009.5		2.71	34.8		
	13	1012		2.70	40.6		

$$P_b = P_g - \phi(P_g - P_f)$$

Bulk density from total Porosity data. Valdosta, Ga, T/W.

depth	Sample #	Sp. Gravity/grain density	TΦ	Bulk density
406	756A 2 (402.5' @ 793	2.78	28/162 (1000)	2.74/2.75
590.5	756A 3 (589' @ 2149	2.81	31.2/28.1 (1175)	2.24⁵/2.30
597'	756A 4 (597' @ 1851	2.73	32.5/32.3 (1500)	2.16/2.17
604'	" 5 (604' @ 1012	2.81	13.2/8.68 (1100)	2.57/2.65
754.5	" 6 753.5' @ 1955*	2.71	30.6/16.6 (2000)	2.18⁶/2.42⁶
760	" 7 (759.5 @ 1677	2.72	32.5/30.0 (2000)	2.16/2.20
761	" 8 (761' @ 1778	2.71	33.2/30.2 (2000)	2.14/2.19
907.5	"9 907.5' @ 1798	2.73	34.8/32.1 (2200)	2.12⁸/2.17
911	10 911.5' @ 1891	2.75	37.6/34.6 (2350)	2.09/2.14
916	11 916' @ 1971	2.72	37.8/37.6	2.06/2.07
1009.5	12	2.71	43.7/34.8	1.96/2.11
1012	13	2.70	42.0/40.6	1.99/2.01

1760

75 Georgia

SPECIFIC GRAVITIES

Sample Number	Sample Volume	Weight of Sample & Container	Weight of Container	Weight of Sample	Specific Gravity
2	7.95^{-03}	123.1041	100.9682	22.1359	2.78
3	$6.61^{-.01}$	119.5628	100.96169	18.5959	2.81
4	6.24^{+02}	117.8739	100.9655	16.9084	2.71
5	7.54^{0}	122.1726	100.9649	21.2077	2.81
6	5.58^{-03}	116.0680	100.9648	15.1032	2.71
7	7.42^{+04}	123.1290	102.9103	20.2187	2.72
8	5.33^{+04}	117.3745	102.9100	14.4645	2.71
9	5.99^{+03}	119.2377	102.9093	16.3284	2.73
10	6.22^{+04}	120.0108	102.9100	17.1008	2.75
11	$4.57^{-.01}$	113.4139	100.9659	12.4480	2.72
12	3.91^{0}	111.5716	100.9663	10.6053	2.71
~~10~~	~~3.75^{+04}~~	~~116.0654~~	~~102.7109~~	~~13.825~~	~~2.60~~
Rerun 13	$2.57^{-.01}$	107.9151	100.9690	6.9461	2.70
Rerun 4	$6.08^{+.07}$	119.5355	102.9106	16.6249	2.73