

NGL C5A Pore Volume Calculations

Lyons

ρ_{fr} , gm/cc	ρ_{ma} , gm/cc	h, ft	ρ_{br} , gm/cc	ϕ	$\phi \cdot h$, ft
1.00	2.65	12	2.47	0.1098	1.3171
		12			$\Sigma(\phi \cdot h) = 1.3171$

Volume Calculation

$$B_w = 1.00$$

$$S_w = 1.00$$

$$r = 1320 \text{ ft}$$

$$V = 1,283,996 \text{ bbl}$$

Total Volume

$$V = 16,629,821 \text{ bbl}$$

Net Thickness

$$h = 180 \text{ ft}$$

L Satanka

ρ_{fr} , gm/cc	ρ_{ma} , gm/cc	h, ft	ρ_{br} , gm/cc	ϕ	$\phi \cdot h$, ft
1.00	2.65	0	N/A	0.0000	0.0000
		0			$\Sigma(\phi \cdot h) = 0.0000$

Volume Calculation

$$B_w = 1.00$$

$$S_w = 1.00$$

$$r = 1320 \text{ ft}$$

$$V = - \text{ bbl}$$

Average Porosity

$$\phi = 0.0948$$

Wolfcamp

ρ_{fr} , gm/cc	ρ_{ma} , gm/cc	h, ft	ρ_{br} , gm/cc	ϕ	$\phi \cdot h$, ft
1.00	2.87	0	N/A	0.0000	0.0000
		0			$\Sigma(\phi \cdot h) = 0.0000$

Volume Calculation

$$B_w = 1.00$$

$$S_w = 1.00$$

$$r = 1320 \text{ ft}$$

$$V = - \text{ bbl}$$

Amazon

ρ_{fr} , gm/cc	ρ_{ma} , gm/cc	h, ft	ρ_{br} , gm/cc	ϕ	$\phi \cdot h$, ft
1.00	2.87	38.5	2.63	0.1310	5.0417
		38.5			$\Sigma(\phi \cdot h) = 5.0417$

Volume Calculation

$$B_w = 1.00$$

$$S_w = 1.00$$

$$r = 1320 \text{ ft}$$

$$V = 4,915,045 \text{ bbl}$$

Council Grove

ρ_{fr} , gm/cc	ρ_{ma} , gm/cc	h, ft	ρ_{br} , gm/cc	ϕ	$\phi \cdot h$, ft
1.00	2.87	90	2.71	0.0854	7.6874
		90			$\Sigma(\phi \cdot h) = 7.6874$

Volume Calculation

$$B_w = 1.00$$

$$S_w = 1.00$$

$$r = 1320 \text{ ft}$$

$$V = 7,494,280 \text{ bbl}$$

Admire

ρ_{fr} , gm/cc	ρ_{ma} , gm/cc	h, ft	ρ_{br} , gm/cc	ϕ	$\phi \cdot h$, ft
1.00	2.71	0	N/A	0.0000	0.0000
		0			$\Sigma(\phi \cdot h) = 0.0000$

Volume Calculation

$$B_w = 1.00$$

$$S_w = 1.00$$

$$r = 1320 \text{ ft}$$

$$V = - \text{ bbl}$$

Virgil

ρ_{fr} , gm/cc	ρ_{ma} , gm/cc	h, ft	ρ_{br} , gm/cc	ϕ	$\phi \cdot h$, ft
1.00	2.71	39.5	2.58	0.0763	3.0122
		39.5			$\Sigma(\phi \cdot h) = 3.0122$

Volume Calculation

$$B_w = 1.00$$

$$S_w = 1.00$$

$$r = 1320 \text{ ft}$$

$$V = 2,936,499 \text{ bbl}$$

Missouri

ρ_{fr} , gm/cc	ρ_{ma} , gm/cc	h, ft	ρ_{br} , gm/cc	ϕ	$\phi \cdot h$, ft
1.00	2.71	0	N/A	0.0000	0.0000
		0			$\Sigma(\phi \cdot h) = 0.0000$

Volume Calculation

$$B_w = 1.00$$

$$S_w = 1.00$$

$$r = 1320 \text{ ft}$$

$$V = - \text{ bbl}$$

Fountain

ρ_{fr} , gm/cc	ρ_{ma} , gm/cc	h, ft	ρ_{br} , gm/cc	ϕ	$\phi \cdot h$, ft
1.00	2.71	0	N/A	0.0000	0.0000
		0			$\Sigma(\phi \cdot h) = 0.0000$

Volume Calculation

$$B_w = 1.00$$

$$S_w = 1.00$$

$$r = 1320 \text{ ft}$$

$$V = - \text{ bbl}$$

Des Moines

ρ_{fr} , gm/cc	ρ_{ma} , gm/cc	h, ft	ρ_{br} , gm/cc	ϕ	$\phi \cdot h$, ft
1.00	2.68	0	N/A	0.0000	0.0000
		0			$\Sigma(\phi \cdot h) = 0.0000$

Volume Calculation

$$B_w = 1.00$$

$$S_w = 1.00$$

$$r = 1320 \text{ ft}$$

$$V = - \text{ bbl}$$

Atoka

ρ_{fr} , gm/cc	ρ_{ma} , gm/cc	h, ft	ρ_{br} , gm/cc	ϕ	$\phi \cdot h$, ft
1.00	2.65	0	N/A	0.0000	0.0000
		0			$\Sigma(\phi \cdot h) = 0.0000$

Volume Calculation

$$B_w = 1.00$$

$$S_w = 1.00$$

$$r = 1320 \text{ ft}$$

$$V = - \text{ bbl}$$