



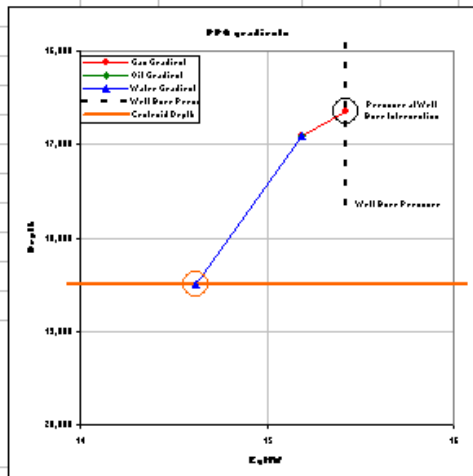
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Calculating Sand PP Spreadsheet Approach



Centroid Spreadsheet

Prospect A - PPQ			
Case:			
PP Centroid Calculations			
Input Values in RED		Calculated Values in BLUE	
Depths and Heights in Feet			
EqMW's Referenced to RKB			
Air Gap (Flowline Elev Abv SL)	86		
Reservoir Water Gradient (ppg)	8.6		
Oil Gradient (ppg)	6.9		
Gas Gradient (psi/ft)	0.1		
Water, Oil and Gas Column Parameters (Effective Fluid Columns are those between the Centroid and the Well Bore Intersection)			
	Depths (tvd-ss)	Q-based PP (EqMW)	
Well Bore Intersection	16638	15.42	<----- Calculated Pore Pressure at Wellbore Intersection
Effective Gas column	262		
Nominal Gas/Oil Contact	16900	15.18	<----- Calculated Pore Pressure at Gas / Oil Contact
Effective Oil Column	0		
Nominal Oil/Water Contact	16900	15.18	<----- Calculated Pore Pressure at Oil / Water Contact
Effective Water Column	1590	PPQ	
Centroid Depth SS and PP	18490	14.62	



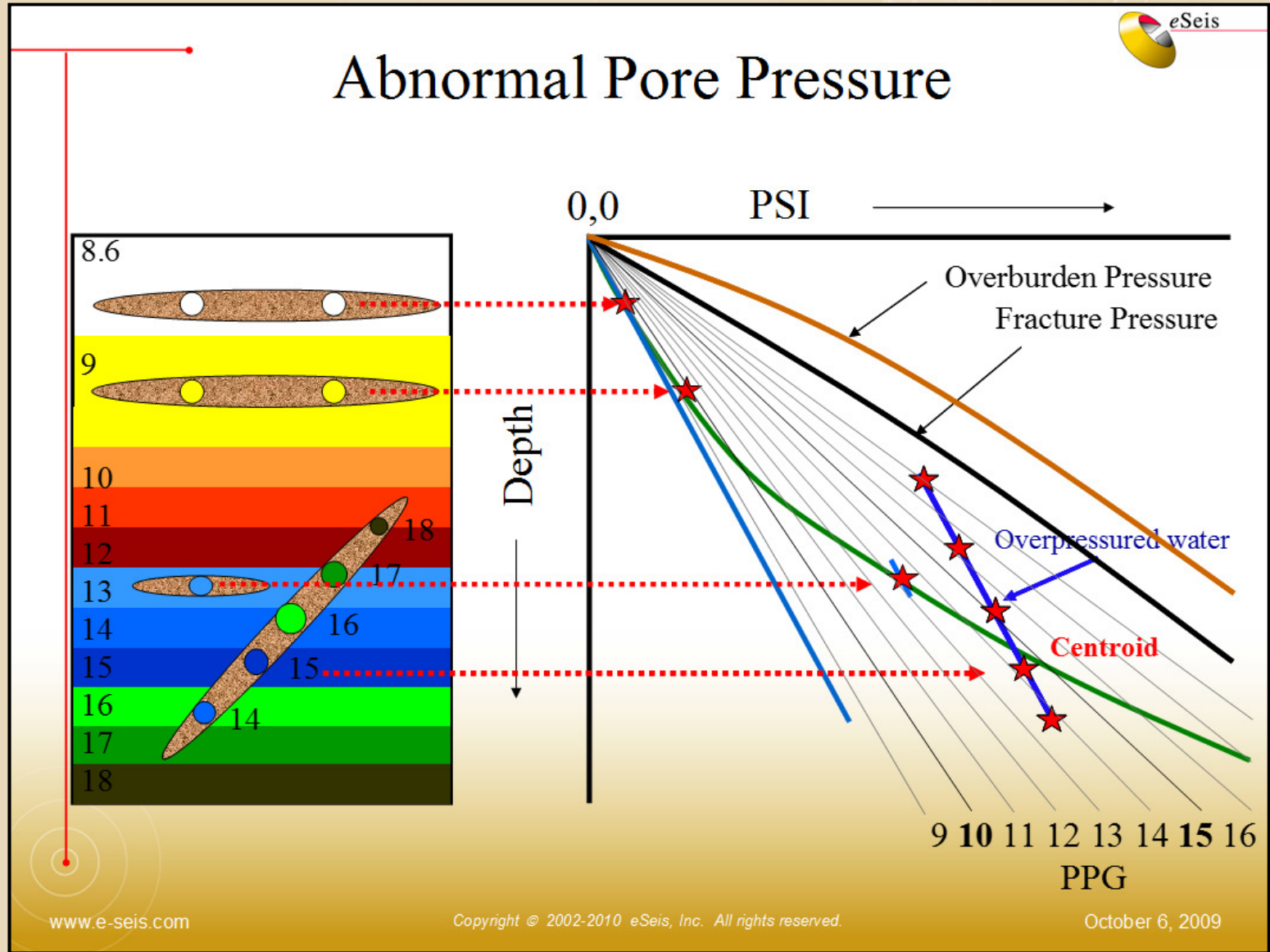


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Calculating Sand PP Graphic Approach



Calculating Sand Pressure



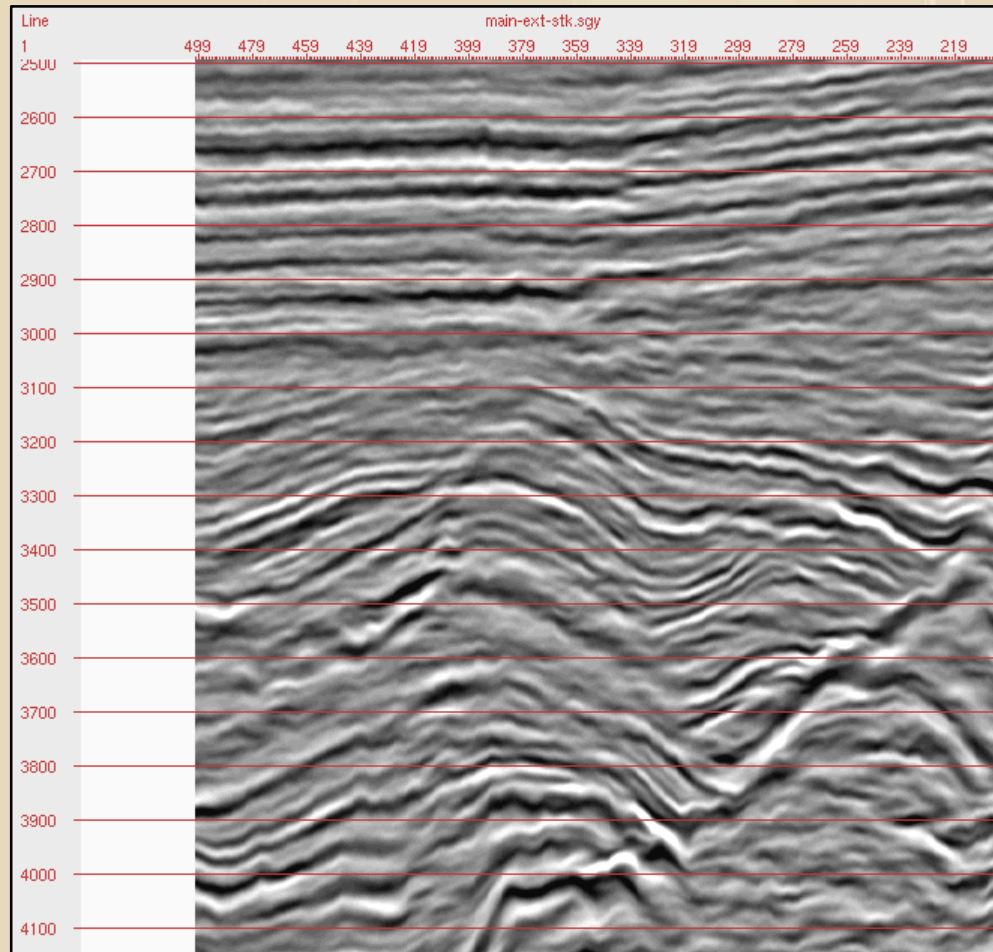


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Calculating Sand PP Volume Approach

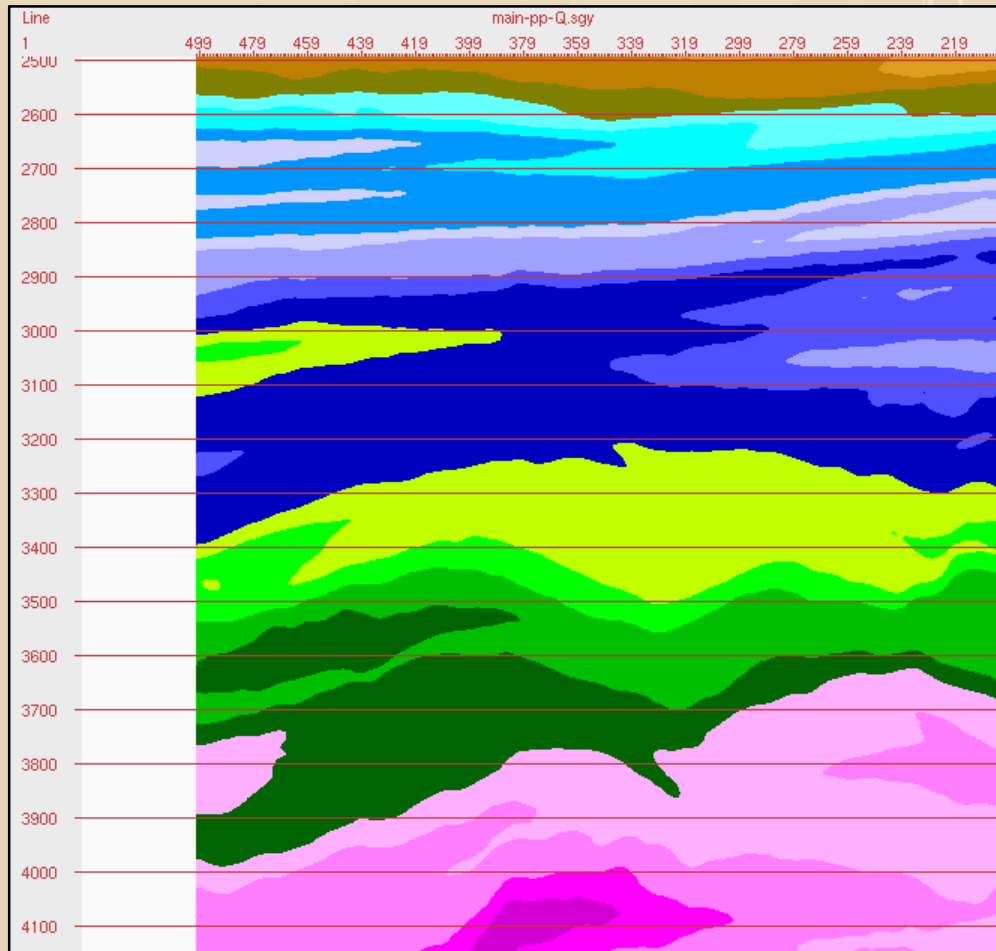
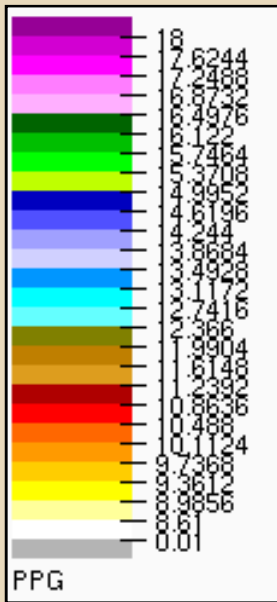


Seismic showing structure





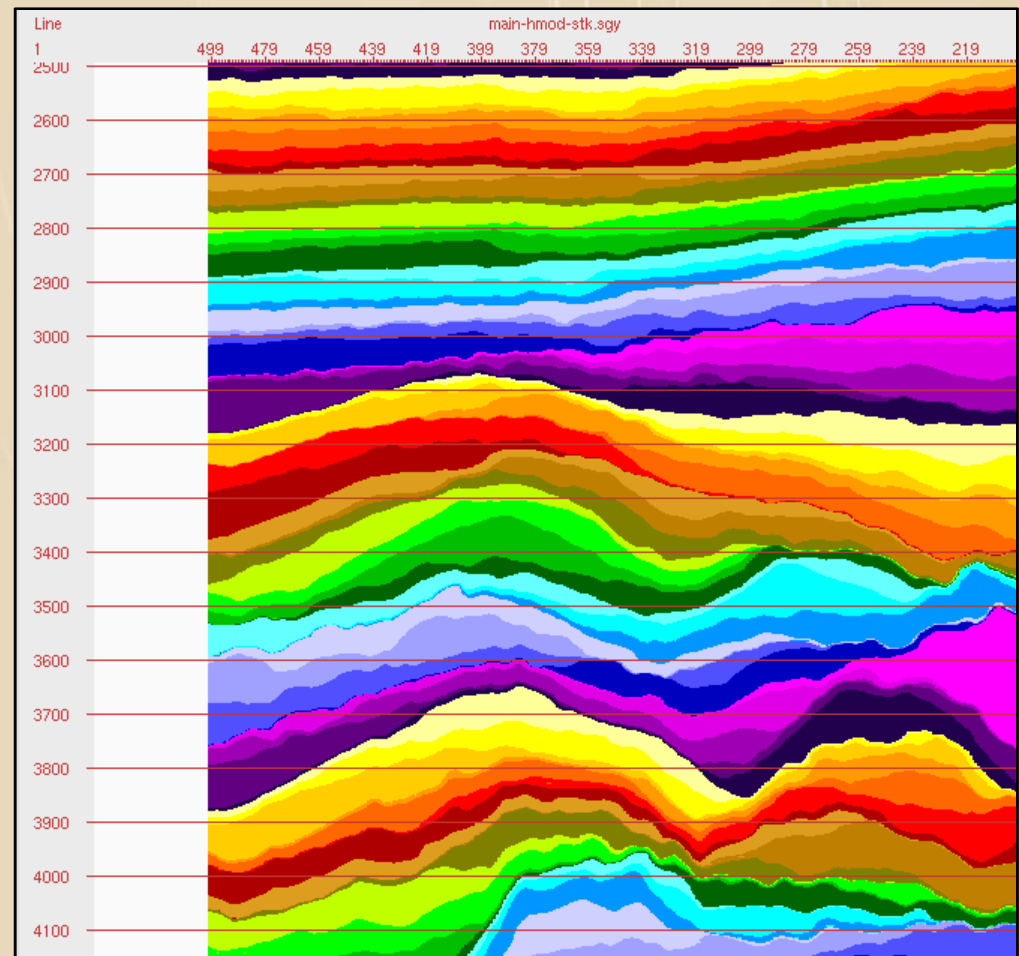
Shale PP-Q





Hydraulic Units

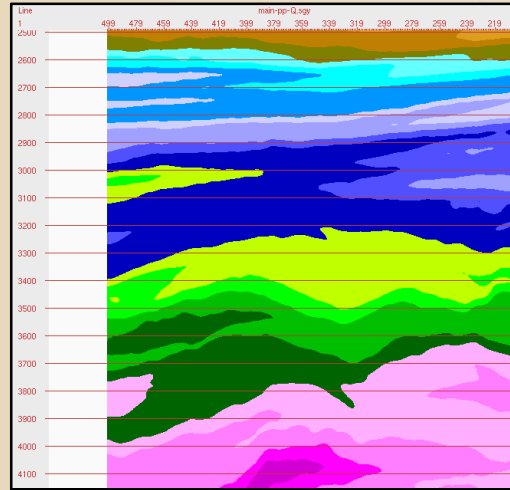
Hydraulic units are found throughout the survey area. This is done with a sophisticated program and is limited to 2d or 3d rectangles. The value the color represents is the average time of each horizon.



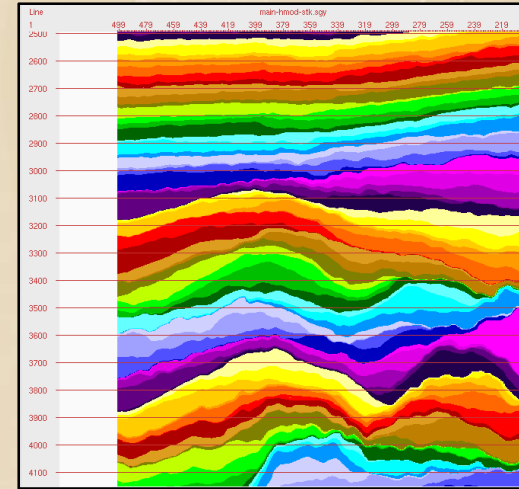


PP-Q Sand Calculation

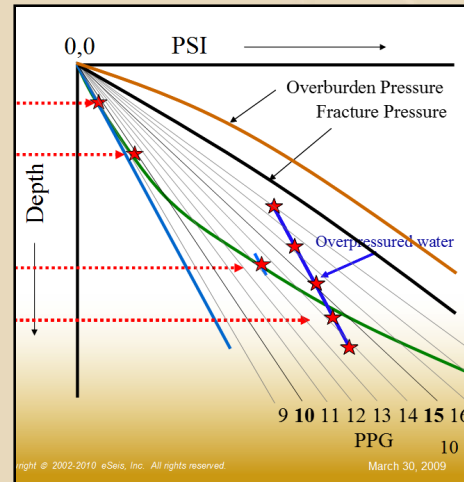
Along each hydraulic unit surface, the average shale PP is found. The average time (actually depth) of each unit is already known. This pair defines the centroid. A water gradient is then assumed and the sand PP is calculated on a volumetric basis.



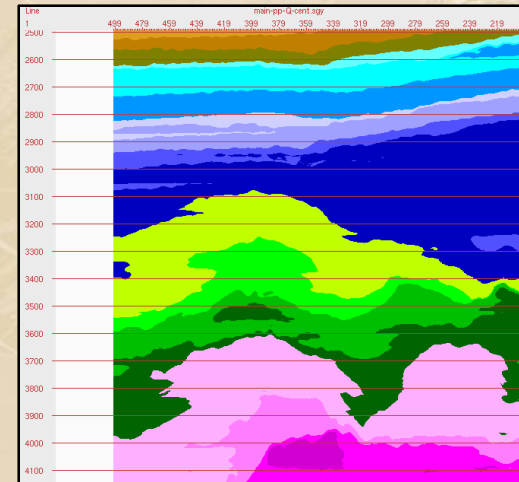
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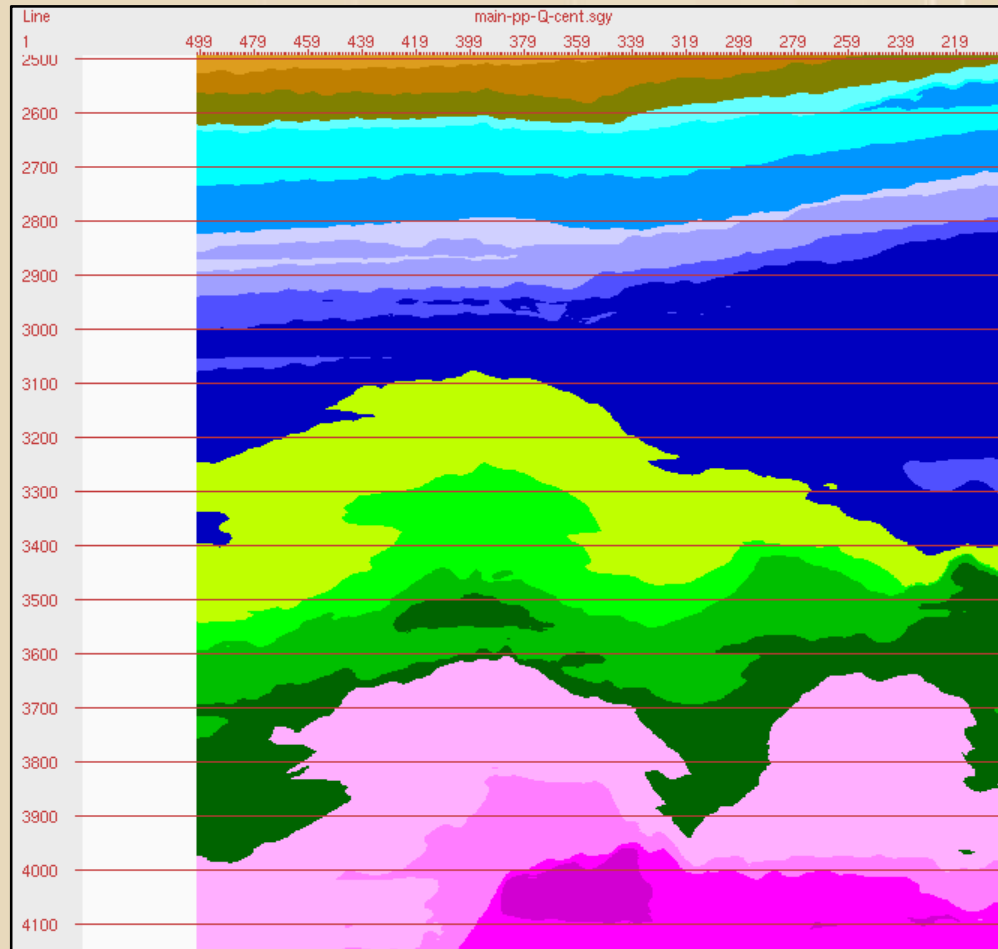
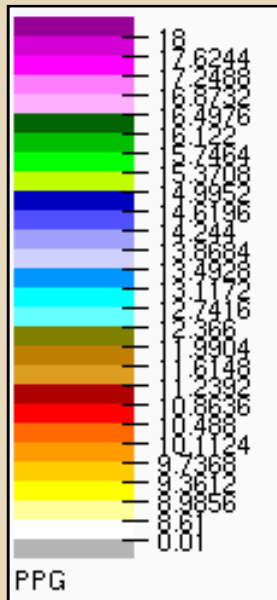


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Instantaneous Sand PP-Q





Shale PP-Q

