

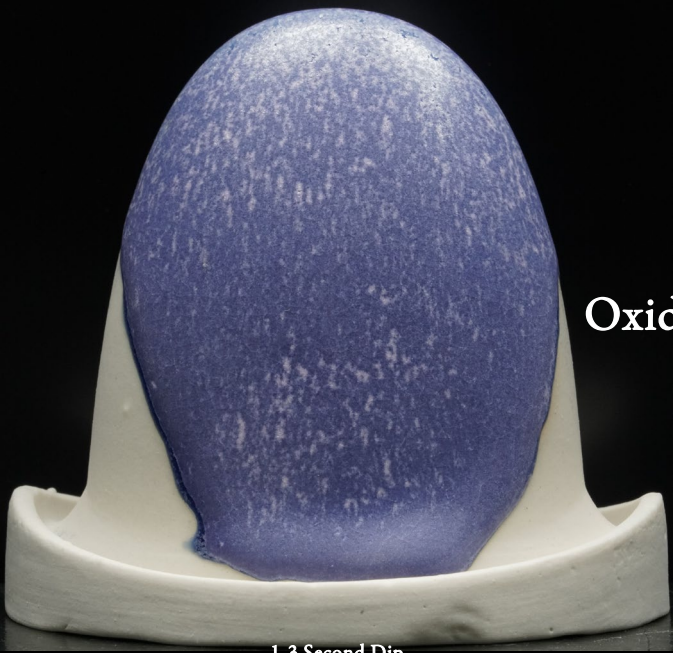
Purple Rain- Δ 10

Lab 4-Back to the Flux Capacity

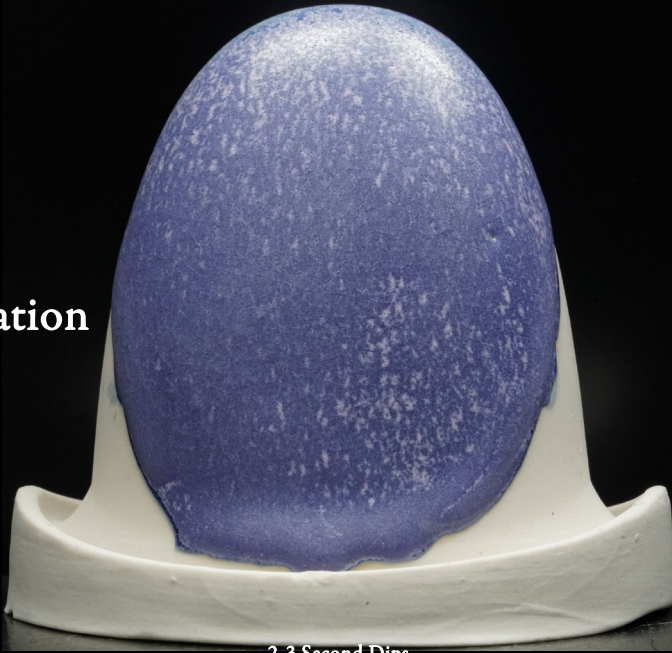
Purple Rain

Original
062722-1

Neph Sy	40.93
Dolomite	30.27
EPK	5.04
Flint	23.76
Cobalt Carbonate	1
Water	60



1-3 Second Dip



2-3 Second Dips

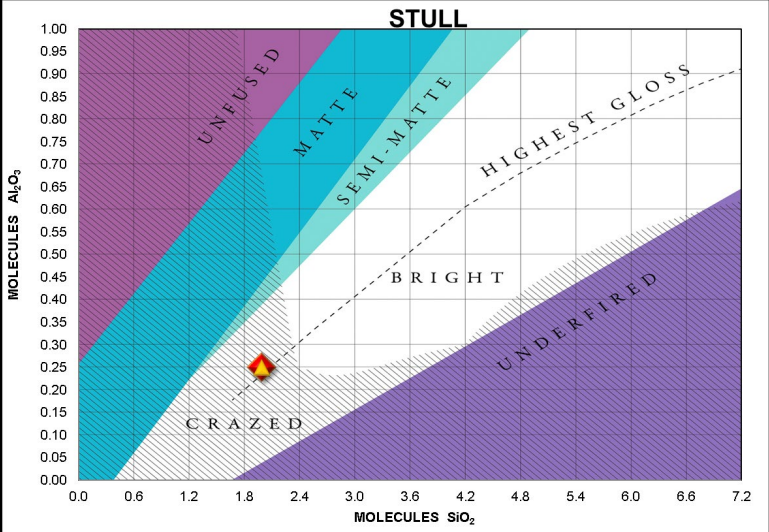


Reduction

Oxidation

UMF

SiO ₂ :Al ₂ O ₃ Ratio 7.93 :1		Alkali Metals 0.21		Alkaline Earths 0.79	
SiO ₂ 2.03	Collective "Al ₂ O ₃ " 0.26	Na ₂ O 0.16	K ₂ O 0.05	MgO 0.39	CaO 0.40
B ₂ O ₃	Al ₂ O ₃ 0.26	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.00
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



EUMF

SiO ₂ :Al ₂ O ₃ Ratio 7.93 :1		Alkali Metals 0.20		Alkaline Earths 0.80	
SiO ₂ 1.99	Collective "Al ₂ O ₃ " 0.25	Na ₂ O 0.16	K ₂ O 0.05	MgO 0.38	CaO 0.39
B ₂ O ₃	Al ₂ O ₃ 0.25	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.00
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO 0.02



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Lab 4-Alkali Metals-Oxidation



062722-1



062722-35



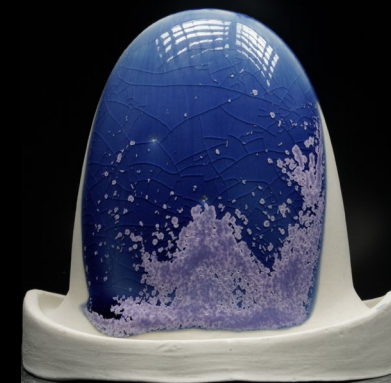
062722-36



062722-37



062722-X1



062722-38

1-3 Second Dip

2-3 Second Dips



Original (NS)



w/Mahavir



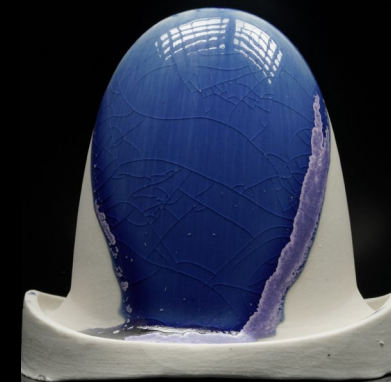
w/Custer



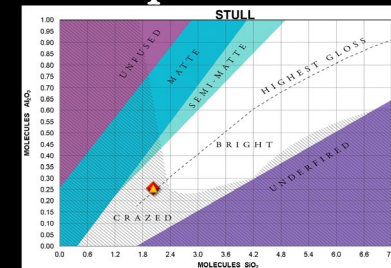
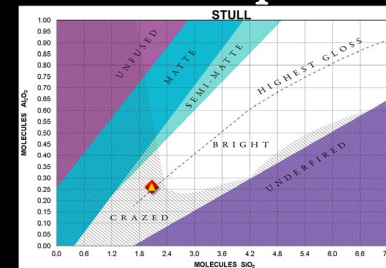
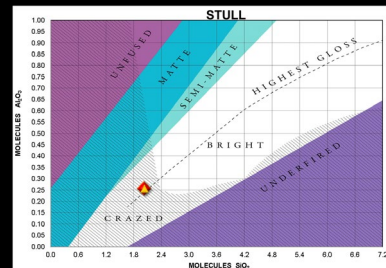
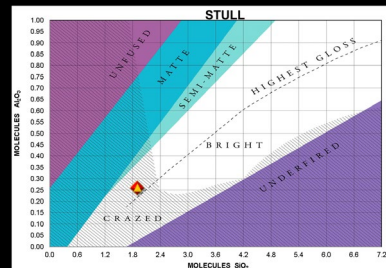
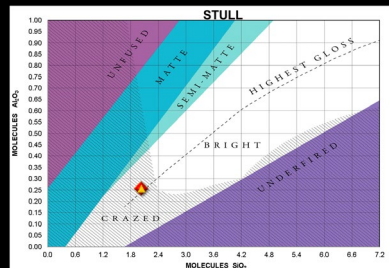
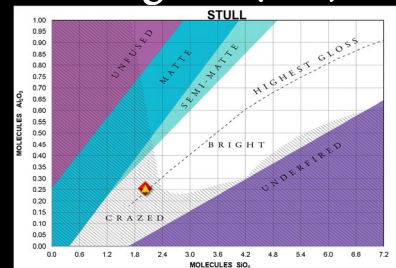
w/G200EU



w/Minspar



w/Spodumene



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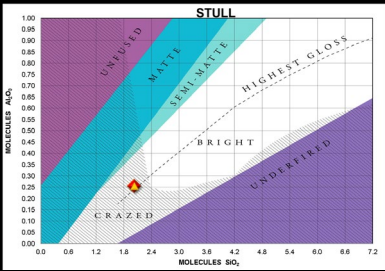
Lab 4-Alkali Metals-Oxidation



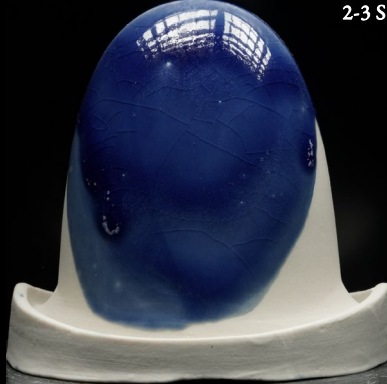
062722-1



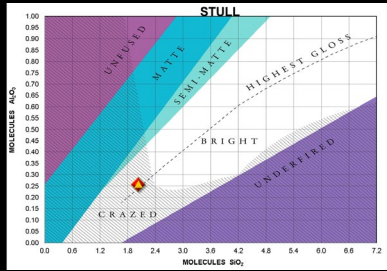
Original (NS)



062722-40



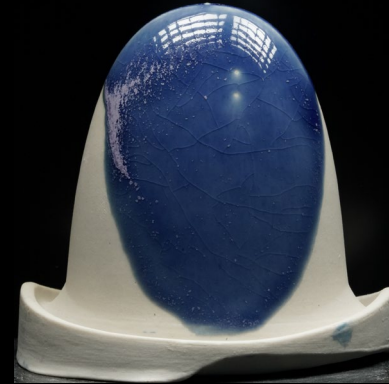
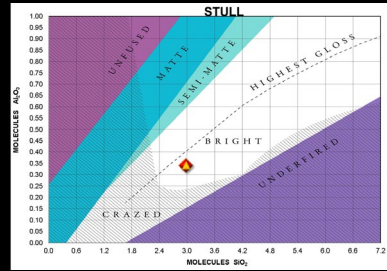
w/Frit 3110



062722-41



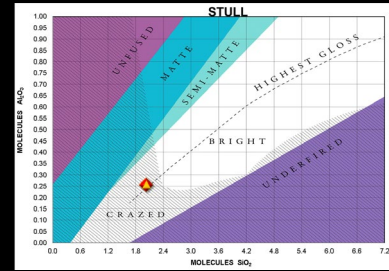
w/Cornwall



062722-42



w/Lithium Carbonate



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Lab 4-Alkali Metals-Reduction



062722-1



062722-35



062722-36

1-3 Second Dip



062722-37



062722-X1



062722-38



Original (NS)



w/Mahavir



w/Custer

2-3 Second Dips



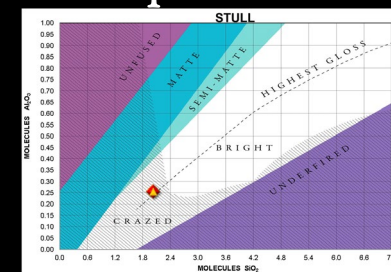
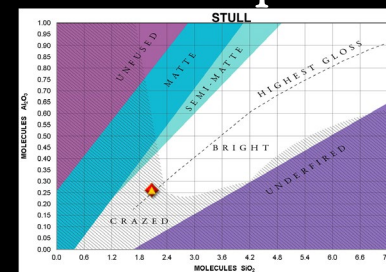
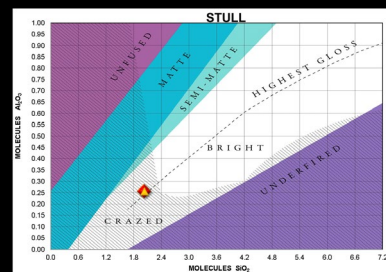
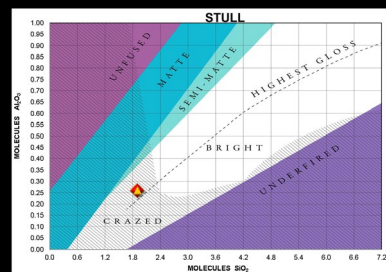
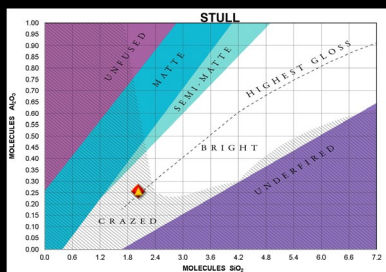
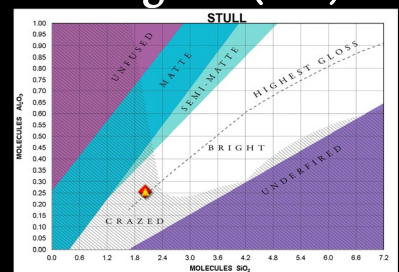
w/G200EU



w/Minspar



w/Spodumene



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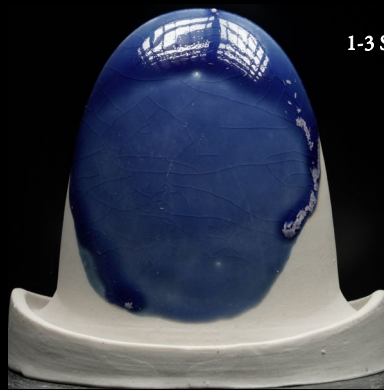
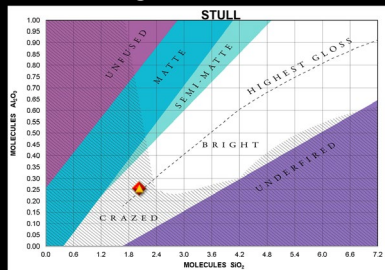
Lab 4-Alkali Metals-Reduction



062722-1



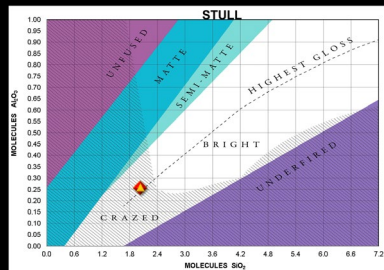
Original (NS)



062722-40



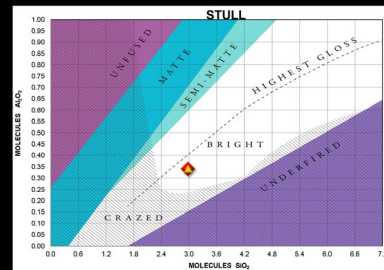
w/Frit 3110



062722-41



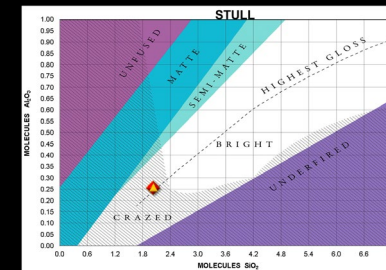
w/Cornwall



062722-42



w/Lithium Carbonate



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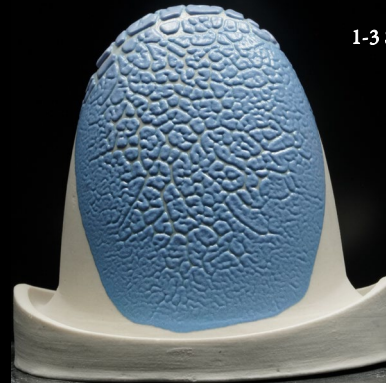
Lab 4-Alkaline Earths-Oxidation



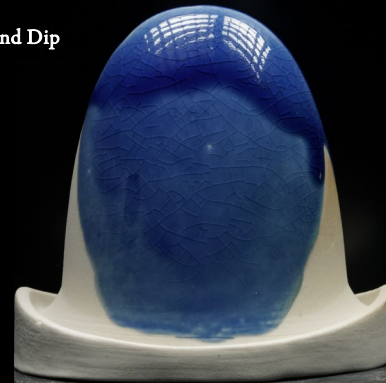
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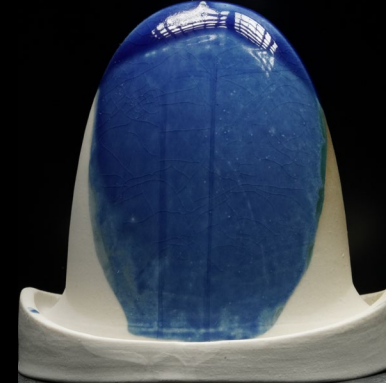
062726-43



062722-44



062722-45



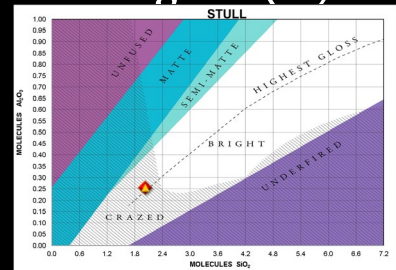
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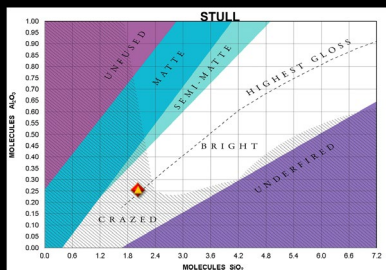
062722-47



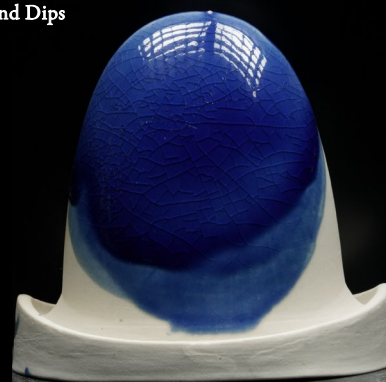
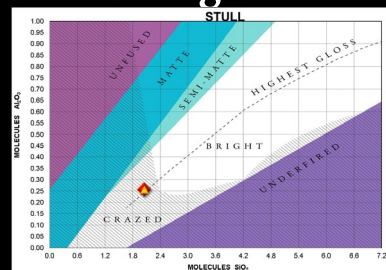
Original (D)



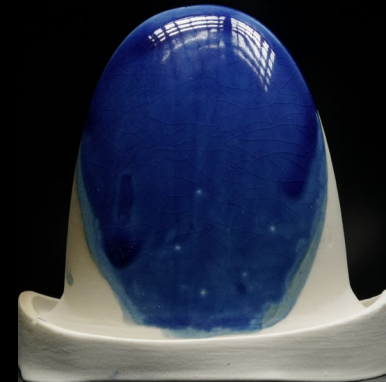
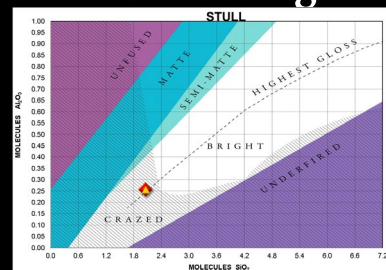
w/Talc



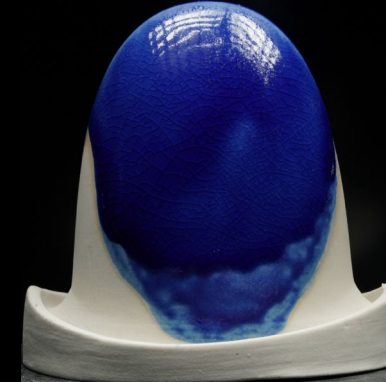
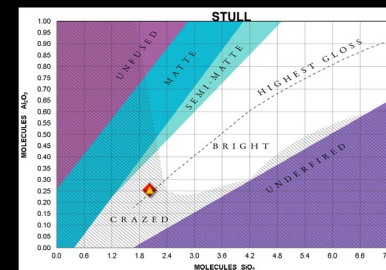
w/Mag Carb



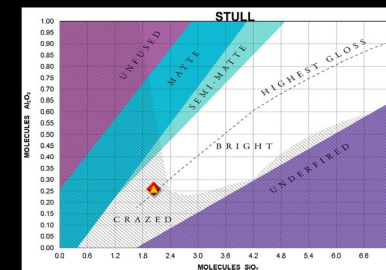
w/Whiting



w/Wollastonite



w/Strontium Carb



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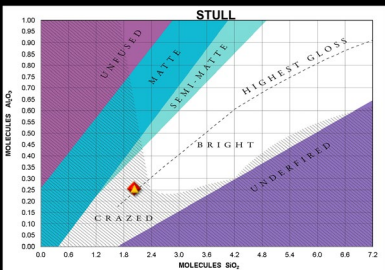
Lab 4-Alkaline Earths-Oxidation



062722-1



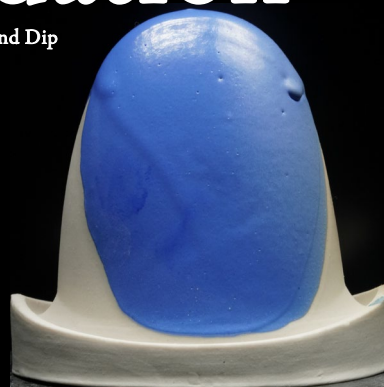
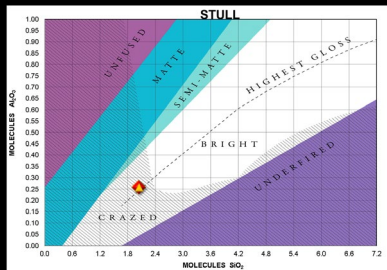
Original (D)



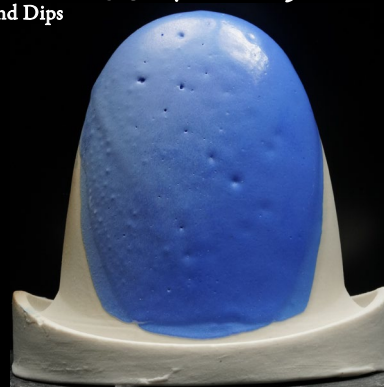
062722-48



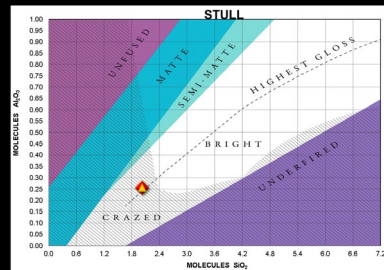
w/Barium Carb



062722-49



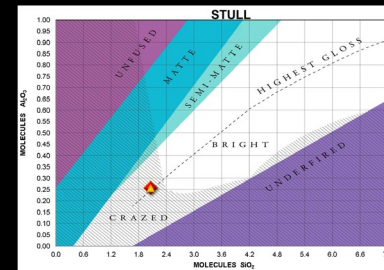
w/Zinc Oxide



062722-50



w/Bone Ash



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Lab 4-Alkaline Earths-Reduction



062722-1

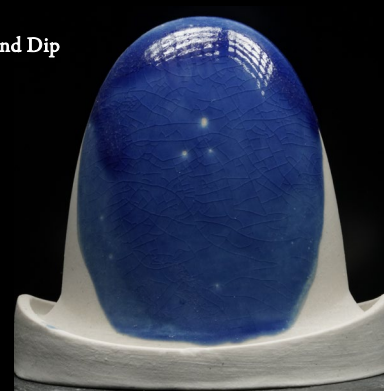


062726-43



062722-44

1-3 Second Dip



062722-45



062722-46



062722-47



Original (D)



w/Talc



w/Mag Carb

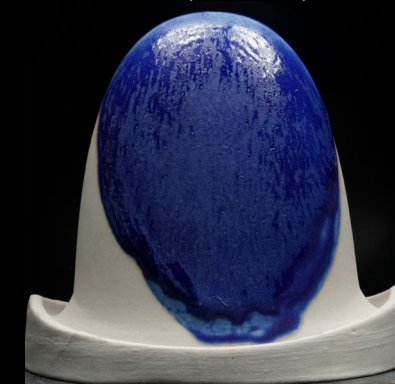
2-3 Second Dips



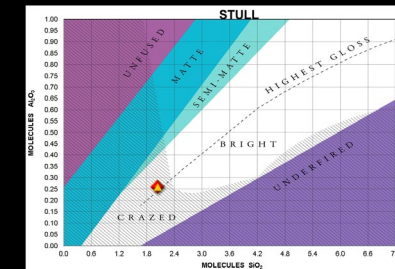
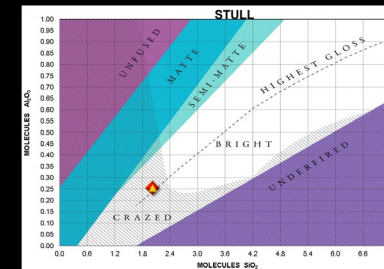
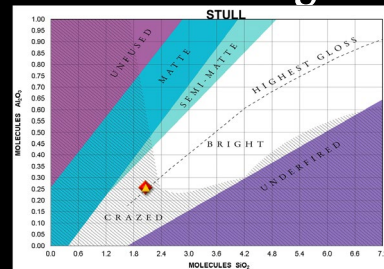
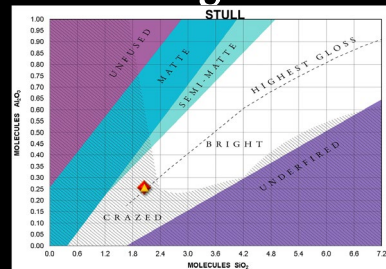
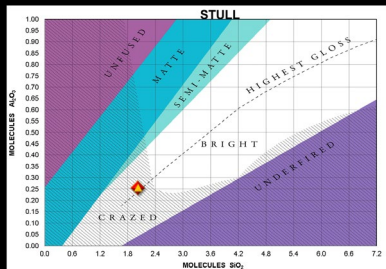
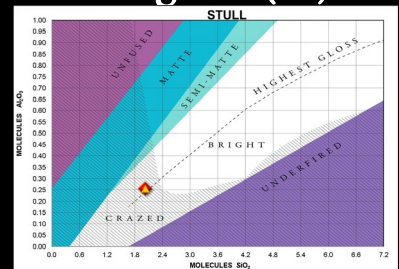
w/Whiting



w/Wollastonite



w/Strontium Carb



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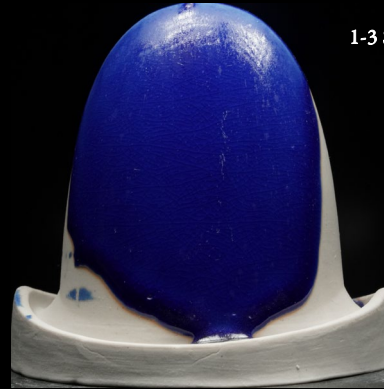
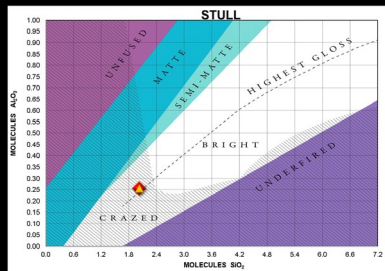
Lab 4-Alkaline Earths-Reduction



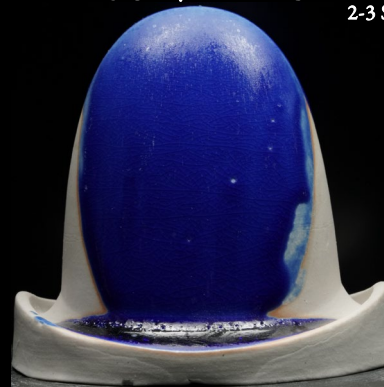
062722-1



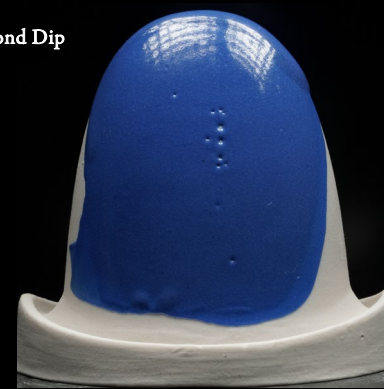
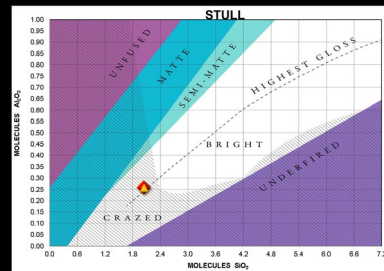
Original (D)



062722-48



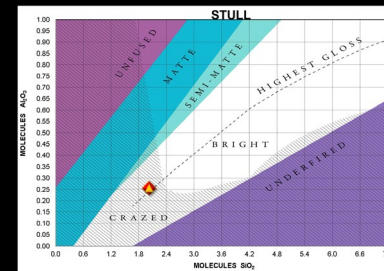
w/Barium Carb



062722-49



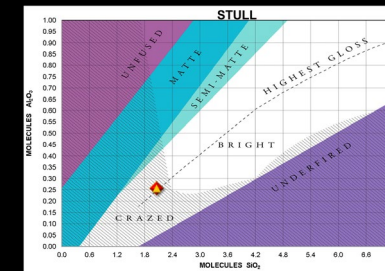
w/Zinc Oxide



062722-50



w/Bone Ash



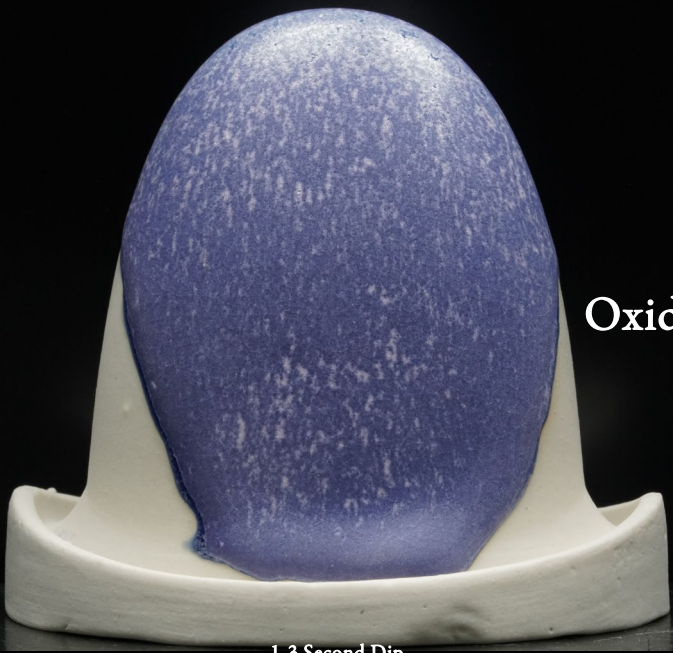
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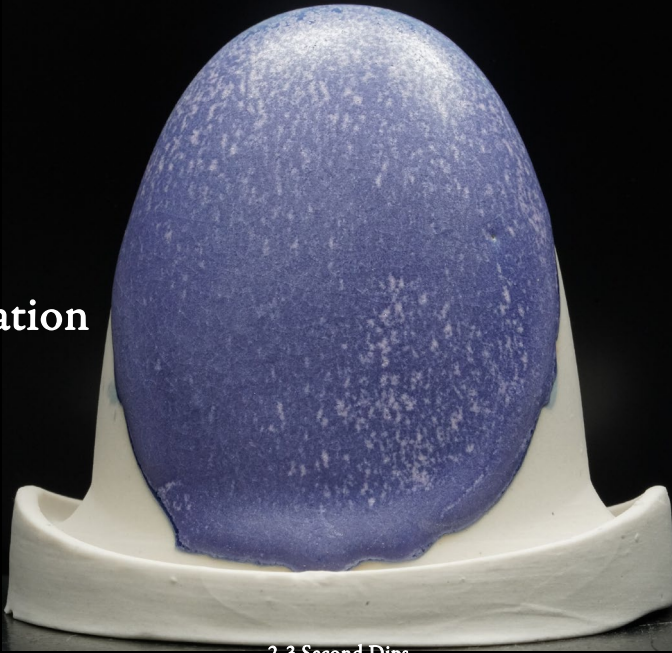
Purple Rain

Original
062722-1

Neph Sy	40.93
Dolomite	30.27
EPK	5.04
Flint	23.76
Cobalt Carbonate	1
Water	60



1-3 Second Dip



2-3 Second Dips



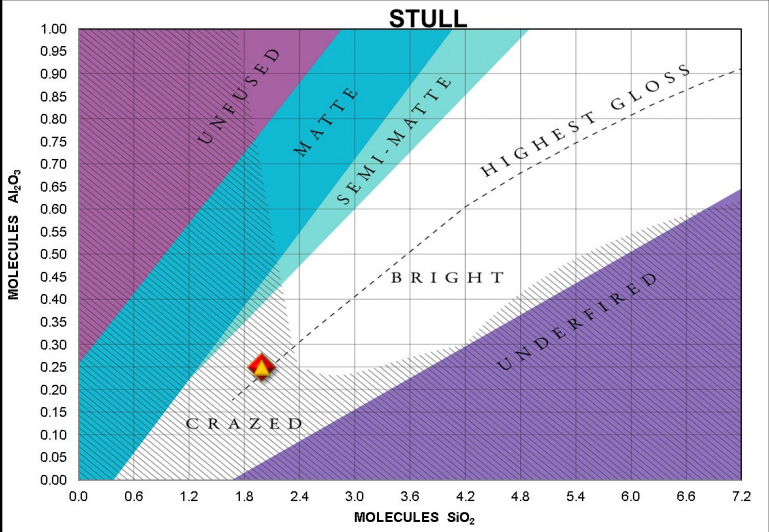
Reduction



Oxidation

UMF

SiO ₂ :Al ₂ O ₃ Ratio 7.93 :1		Alkali Metals 0.21		Alkaline Earths 0.79	
SiO ₂ 2.03	Collective "Al ₂ O ₃ " 0.26	Na ₂ O 0.16	K ₂ O 0.05	MgO 0.39	CaO 0.40
B ₂ O ₃	Al ₂ O ₃ 0.26	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.00
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



EUMF

SiO ₂ :Al ₂ O ₃ Ratio 7.93 :1		Alkali Metals 0.20		Alkaline Earths 0.80	
SiO ₂ 1.99	Collective "Al ₂ O ₃ " 0.25	Na ₂ O 0.16	K ₂ O 0.05	MgO 0.38	CaO 0.39
B ₂ O ₃	Al ₂ O ₃ 0.25	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.00
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO 0.02



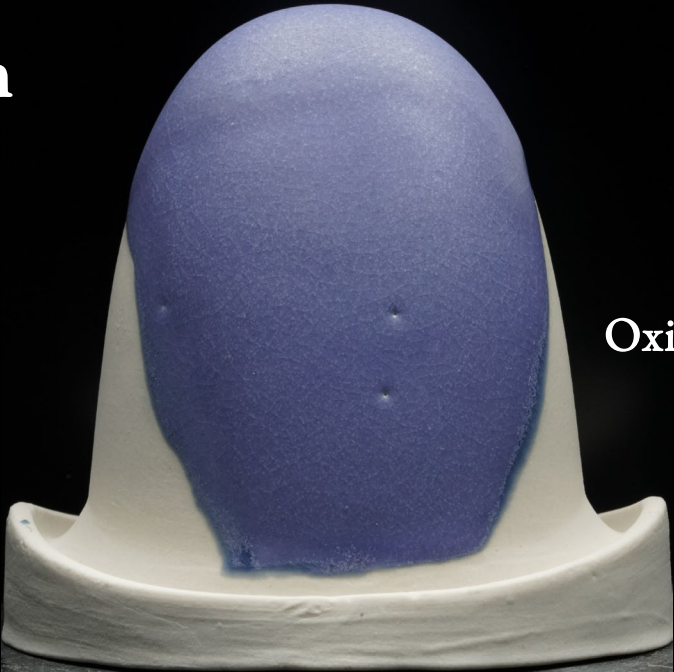
Ceramic
Materials
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Purple Rain

Chemical Match
Mahavir Feldspar

062722 -35

Mahavir	50.07
Dolomite	29.82
EPK	5.65
Flint	14.46
Cobalt Carbonate	1.02
Water	60



1-3 Second Dip



2-3 Second Dips

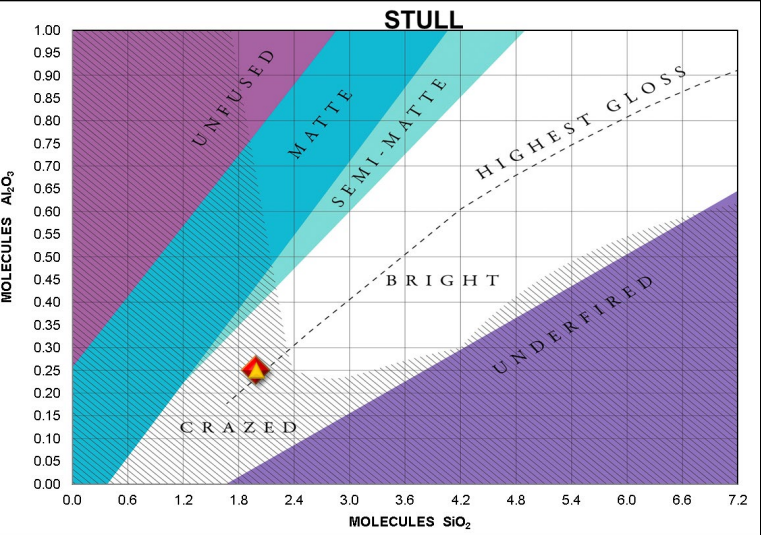


Reduction

Oxidation

UMF

SiO ₂ :Al ₂ O ₃ Ratio 7.90 :1		Alkali Metals 0.21		Alkaline Earths 0.79	
SiO ₂ 2.03	Collective "Al ₂ O ₃ " 0.26	Na ₂ O 0.06	K ₂ O 0.15	MgO 0.40	CaO 0.39
B ₂ O ₃	Al ₂ O ₃ 0.26	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.00
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



EUMF

SiO ₂ :Al ₂ O ₃ Ratio 7.90 :1		Alkali Metals 0.20		Alkaline Earths 0.80	
SiO ₂ 1.99	Collective "Al ₂ O ₃ " 0.25	Na ₂ O 0.06	K ₂ O 0.15	MgO 0.39	CaO 0.39
B ₂ O ₃	Al ₂ O ₃ 0.25	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.00
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO 0.02



Ceramic
Materials
Workshop

Purple Rain

Chemical Match
Custer Feldspar

062722 -36

Custer	59.51
Dolomite	29.52
EPK	3.26
Flint	7.70
Cobalt Carbonate	1.01
Water	60

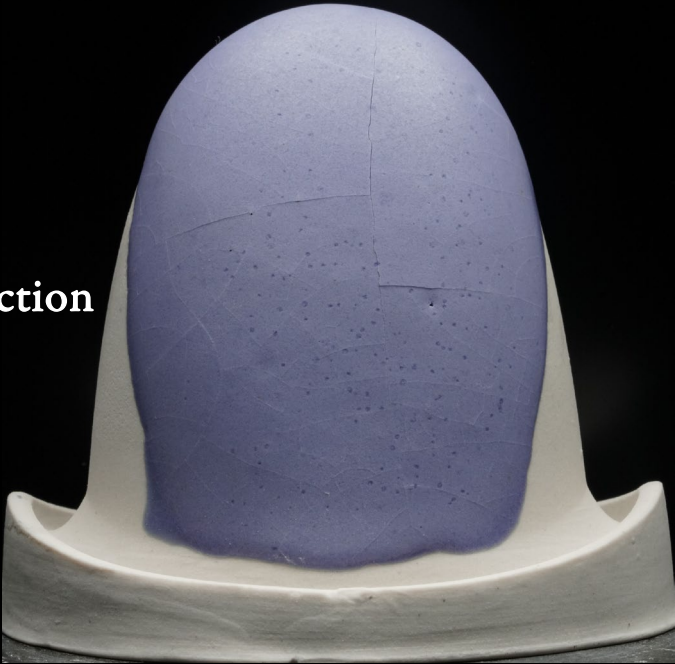


1-3 Second Dip



2-3 Second Dips

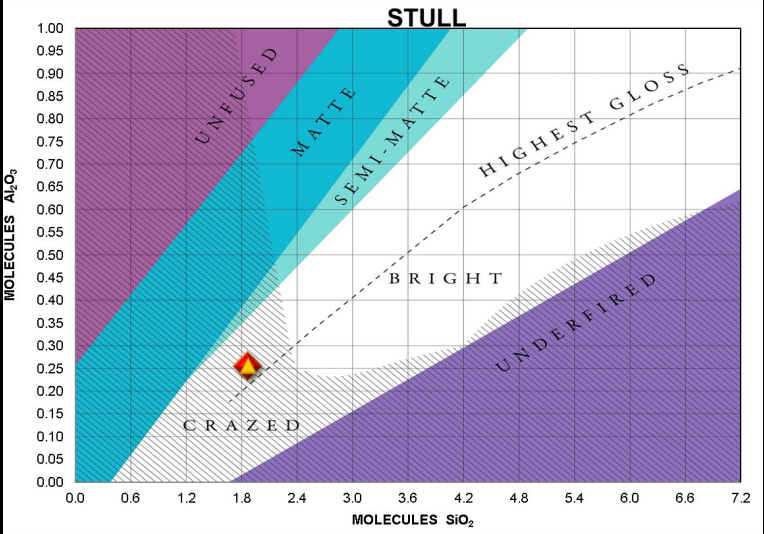
Oxidation



Reduction

UMF

SiO ₂ :Al ₂ O ₃ Ratio 7.28 :1		Alkali Metals 0.25		Alkaline Earths 0.75	
SiO ₂ 1.91	Collective "Al ₂ O ₃ " 0.26	Na ₂ O 0.10	K ₂ O 0.15	MgO 0.37	CaO 0.38
B ₂ O ₃	Al ₂ O ₃ 0.26	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.00
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



EUMF

SiO ₂ :Al ₂ O ₃ Ratio 7.28 :1		Alkali Metals 0.24		Alkaline Earths 0.76	
SiO ₂ 1.87	Collective "Al ₂ O ₃ " 0.26	Na ₂ O 0.10	K ₂ O 0.14	MgO 0.36	CaO 0.37
B ₂ O ₃	Al ₂ O ₃ 0.25	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.00
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO 0.02



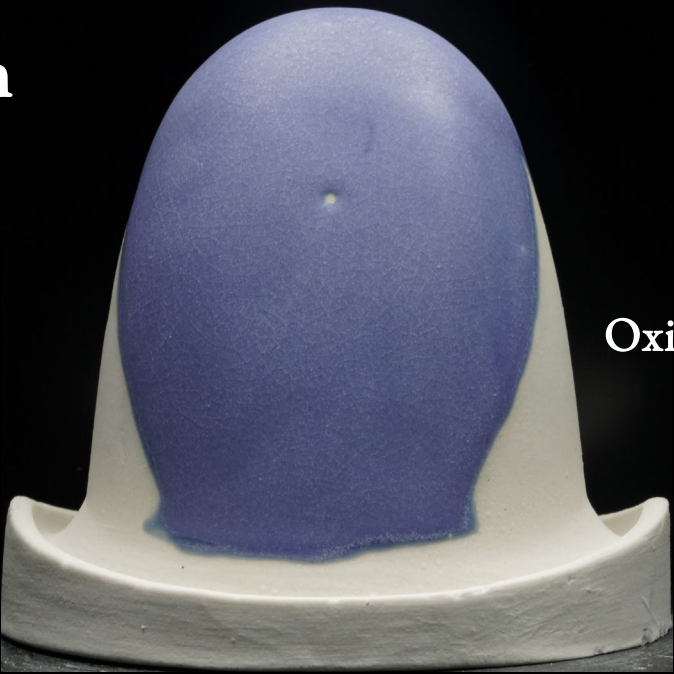
Ceramic
Materials
Workshop

Purple Rain

Chemical Match
G200 EU Feldspar

062722 -37

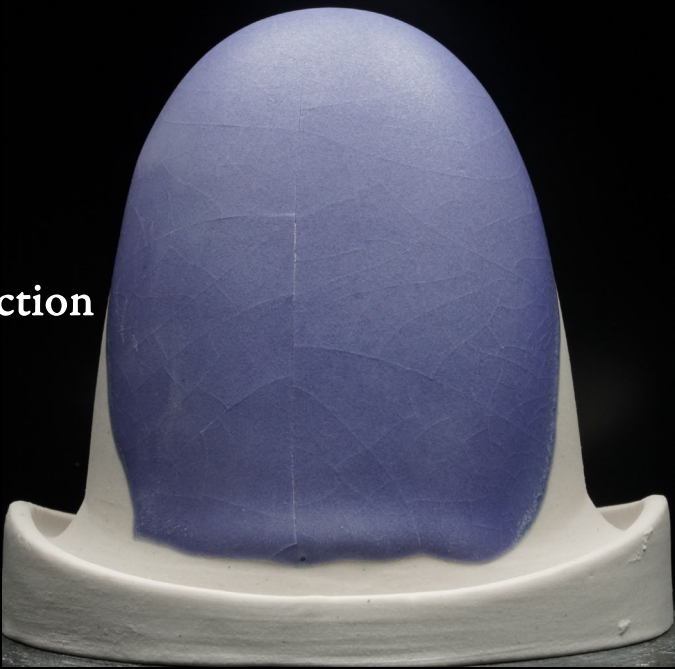
G200 EU	56.81
Dolomite	29.64
EPK	3.28
Flint	10.27
Cobalt Carbonate	1.01
Water	60



1-3 Second Dip



2-3 Second Dips

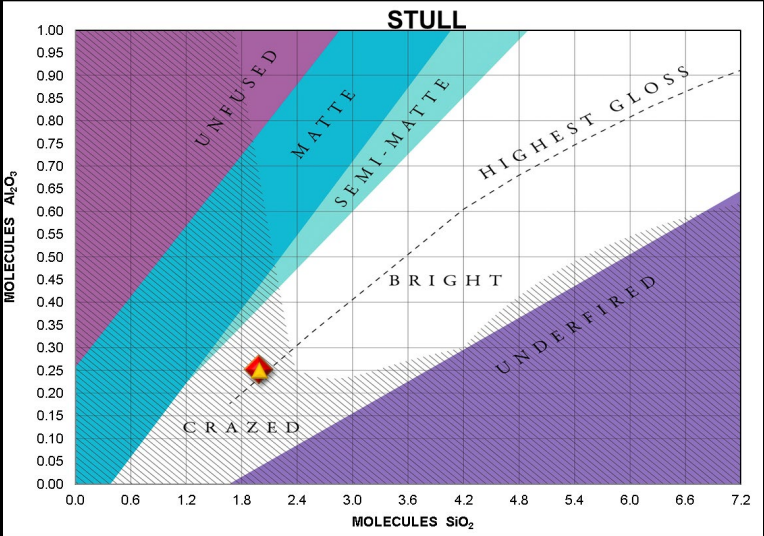


Reduction

Oxidation

UMF

SiO ₂ :Al ₂ O ₃ Ratio 7.90 :1		Alkali Metals 0.21		Alkaline Earths 0.79	
SiO ₂ 2.03	Collective "Al ₂ O ₃ " 0.26	Na ₂ O 0.05	K ₂ O 0.16	MgO 0.39	CaO 0.40
B ₂ O ₃	Al ₂ O ₃ 0.26	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.00
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



EUMF

SiO ₂ :Al ₂ O ₃ Ratio 7.90 :1		Alkali Metals 0.20		Alkaline Earths 0.80	
SiO ₂ 1.99	Collective "Al ₂ O ₃ " 0.25	Na ₂ O 0.05	K ₂ O 0.16	MgO 0.38	CaO 0.39
B ₂ O ₃	Al ₂ O ₃ 0.25	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.00
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO 0.02

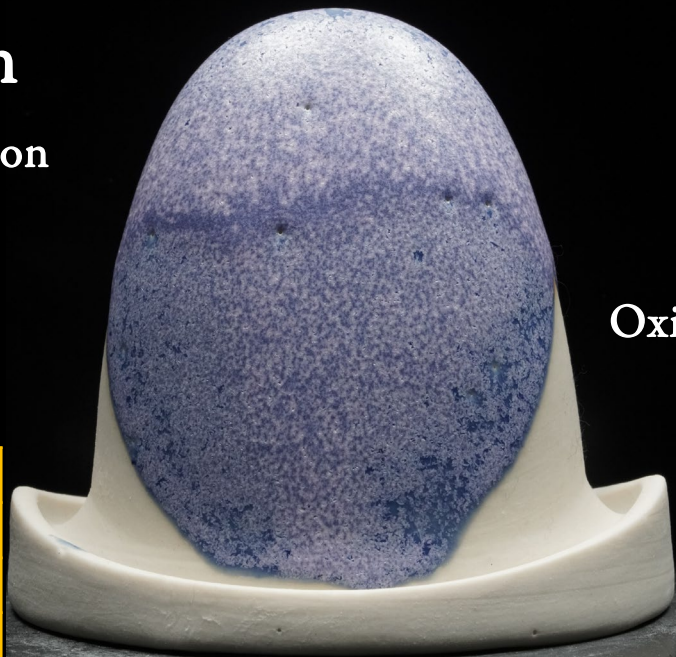


Ceramic
Materials
Workshop

Purple Rain

Weight Substitution
Minspar Feldspar
062722-X

Minspar	59.55
Dolomite	29.32
EPK	
Flint	11.14
Cobalt Carbonate	1
Water	60

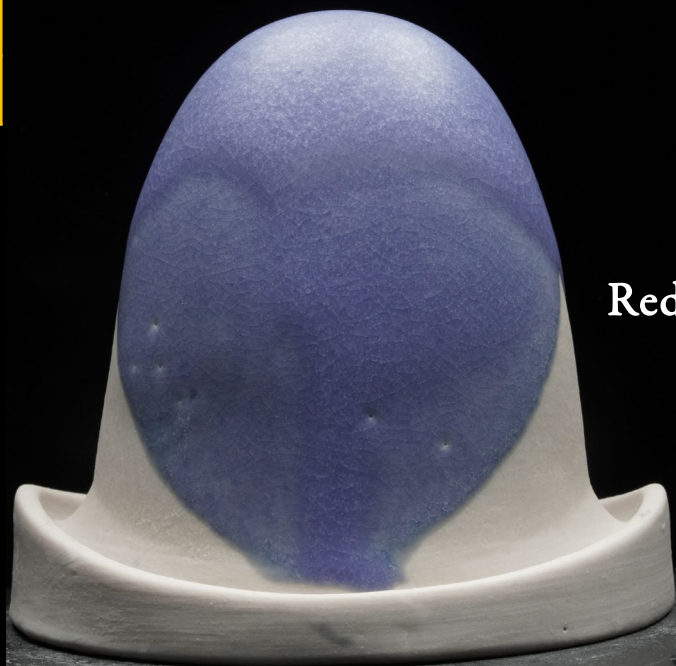


1-3 Second Dip



2-3 Second Dips

Oxidation

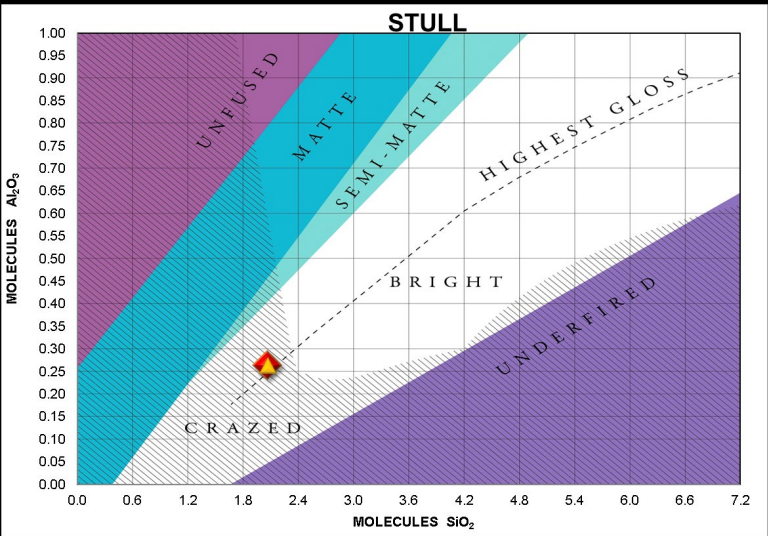


Reduction



UMF

SiO ₂ :Al ₂ O ₃ Ratio 7.83 :1		Alkali Metals 0.21		Alkaline Earths 0.79	
SiO ₂ 2.11	Collective "Al ₂ O ₃ " 0.27	Na ₂ O 0.14	K ₂ O 0.06	MgO 0.38	CaO 0.41
B ₂ O ₃	Al ₂ O ₃ 0.27	Li ₂ O	CuO	SrO 0.00	BaO 0.00
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.00
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



EUMF

SiO ₂ :Al ₂ O ₃ Ratio 7.83 :1		Alkali Metals 0.20		Alkaline Earths 0.80	
SiO ₂ 2.07	Collective "Al ₂ O ₃ " 0.26	Na ₂ O 0.14	K ₂ O 0.06	MgO 0.37	CaO 0.40
B ₂ O ₃	Al ₂ O ₃ 0.26	Li ₂ O	CuO	SrO 0.00	BaO 0.00
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.00
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO 0.02



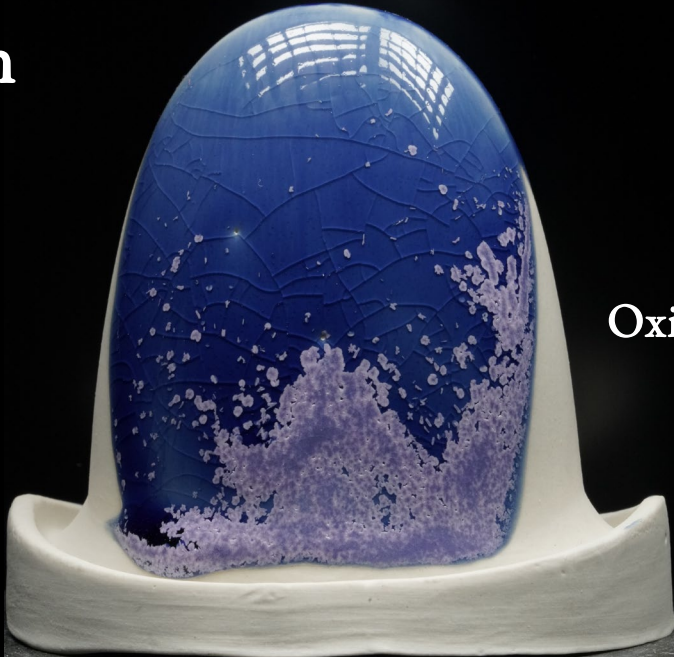
Ceramic
Materials
Workshop

Purple Rain

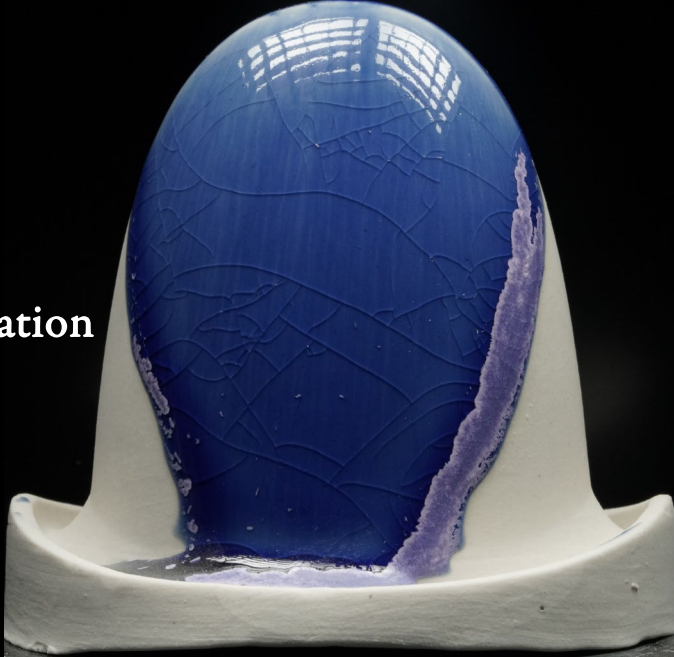
Chemical Match
Spodumene

062722 -38

Spodumene	34.46
Dolomite	31.60
EPK	5.65
Flint	28.29
Cobalt Carbonate	1.02
Water	60



1-3 Second Dip



2-3 Second Dips



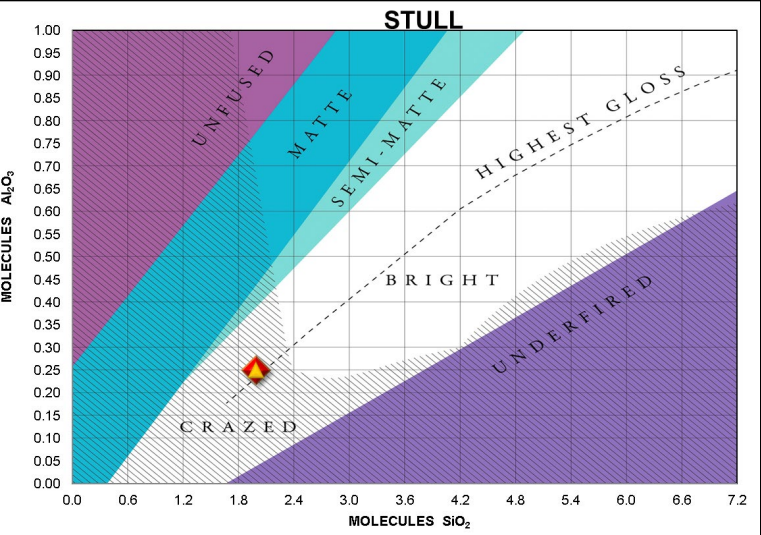
Reduction



Oxidation

UMF

SiO ₂ :Al ₂ O ₃ Ratio 7.92 :1		Alkali Metals 0.21		Alkaline Earths 0.79	
SiO ₂ 2.03	Collective "Al ₂ O ₃ " 0.26	Na ₂ O 0.00	K ₂ O 0.00	MgO 0.39	CaO 0.40
B ₂ O ₃	Al ₂ O ₃ 0.26	Li ₂ O 0.20	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.00
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



EUMF

SiO ₂ :Al ₂ O ₃ Ratio 7.92 :1		Alkali Metals 0.20		Alkaline Earths 0.80	
SiO ₂ 1.99	Collective "Al ₂ O ₃ " 0.25	Na ₂ O 0.00	K ₂ O 0.00	MgO 0.39	CaO 0.39
B ₂ O ₃	Al ₂ O ₃ 0.25	Li ₂ O 0.20	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.00
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO 0.02



Ceramic
Materials
Workshop

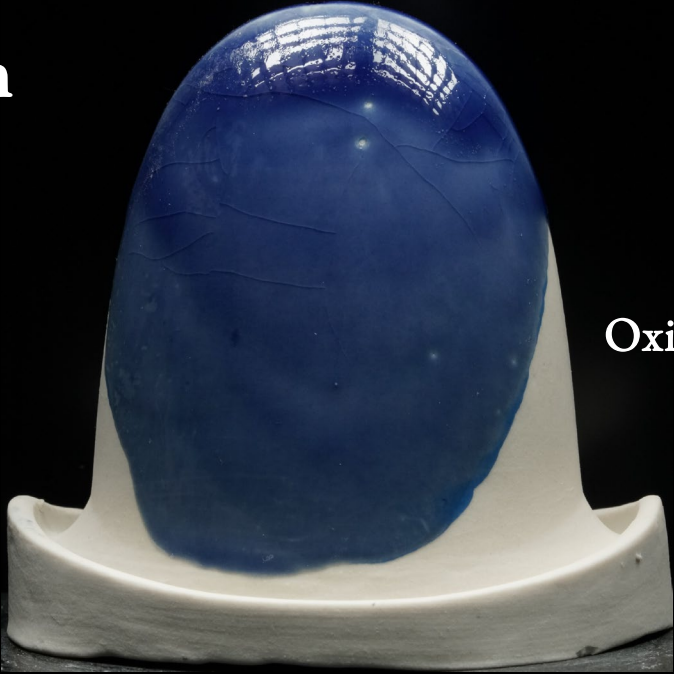
Purple Rain

Chemical Match

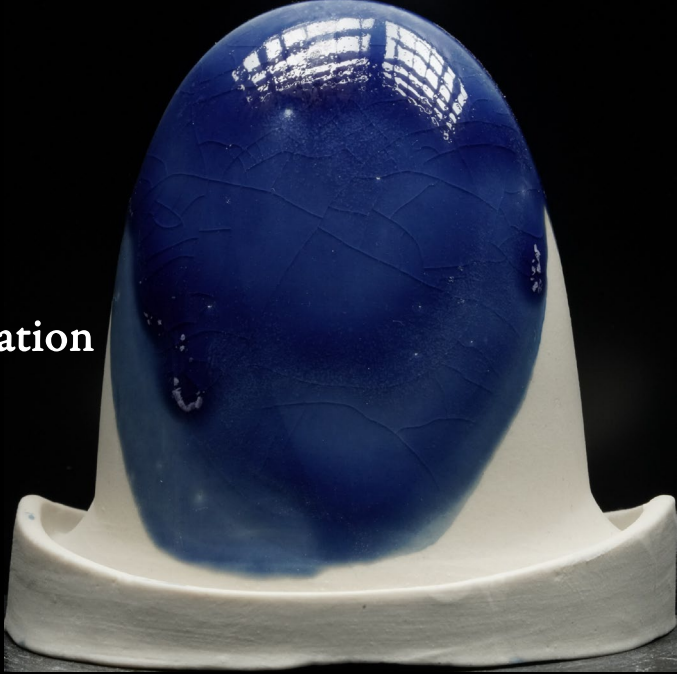
Frit 3110

062722 -40

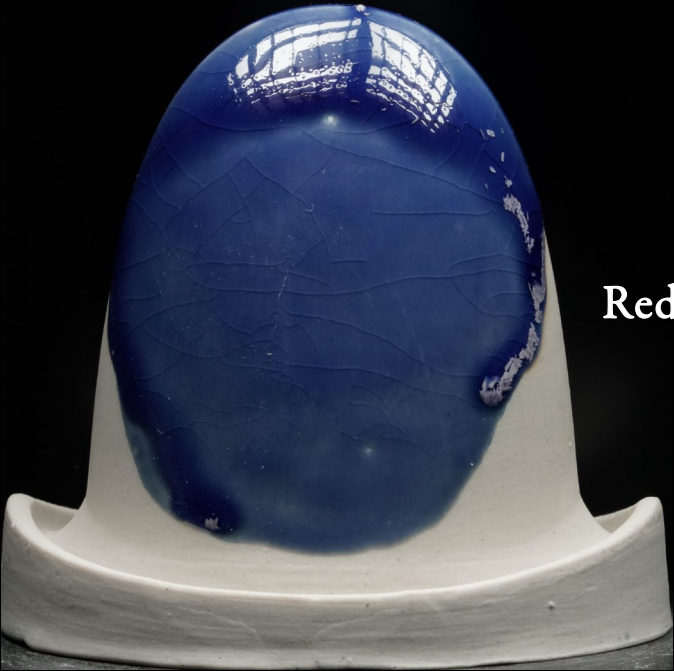
3110	30.63
Dolomite	26.57
EPK	26.76
Flint	16.03
Cobalt Carbonate	1.00
Water	60



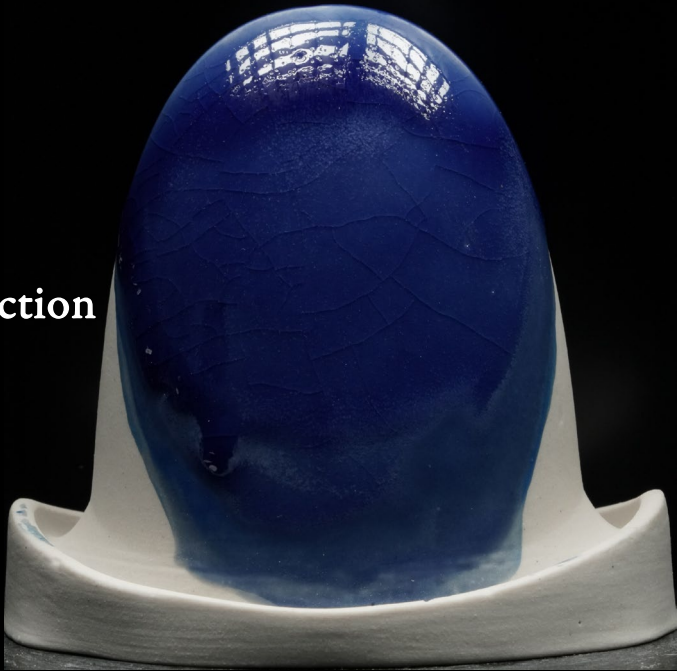
1-3 Second Dip



2-3 Second Dips



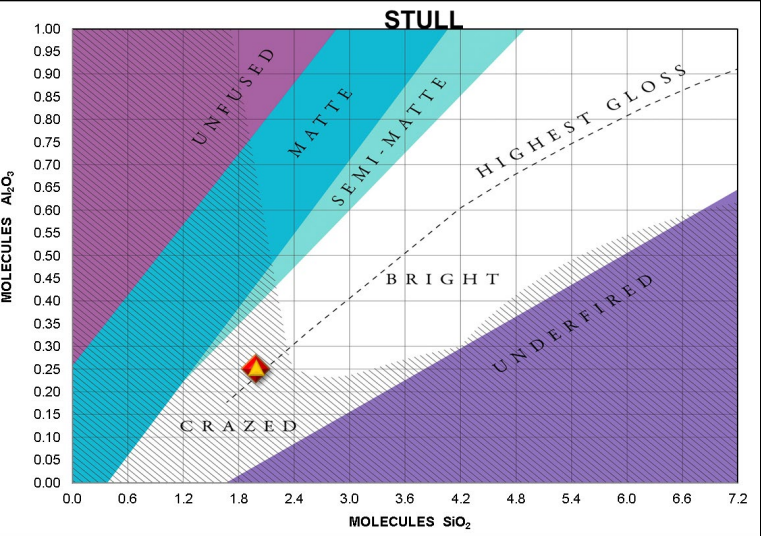
Reduction



Oxidation

UMF

SiO ₂ :Al ₂ O ₃ Ratio 7.83 :1		Alkali Metals 0.21		Alkaline Earths 0.79	
SiO ₂ 2.03	Collective "Al ₂ O ₃ " 0.26	Na ₂ O 0.19	K ₂ O 0.02	MgO 0.35	CaO 0.43
B ₂ O ₃ 0.03	Al ₂ O ₃ 0.26	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.01
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



EUMF

SiO ₂ :Al ₂ O ₃ Ratio 7.83 :1		Alkali Metals 0.20		Alkaline Earths 0.80	
SiO ₂ 1.99	Collective "Al ₂ O ₃ " 0.25	Na ₂ O 0.18	K ₂ O 0.02	MgO 0.34	CaO 0.42
B ₂ O ₃ 0.03	Al ₂ O ₃ 0.25	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.01
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO 0.02



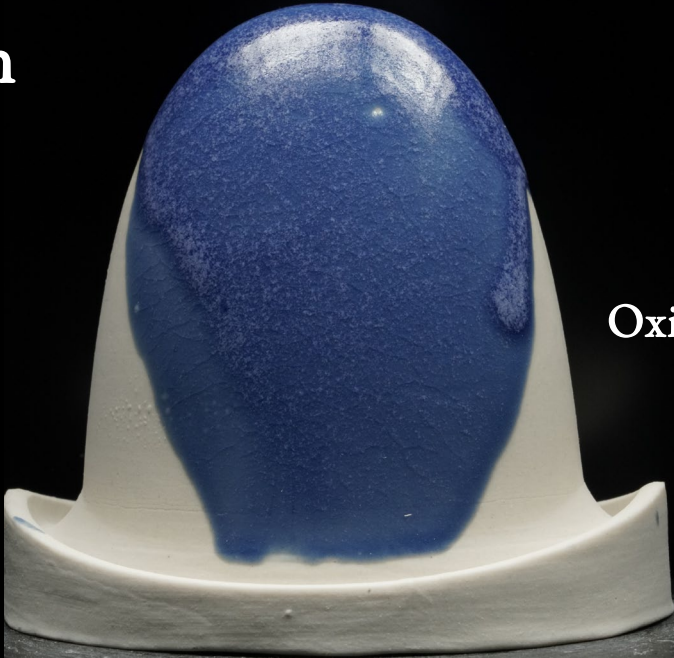
Ceramic
Materials
Workshop

Purple Rain

Chemical Match
Cornwall

062722 -41

Cornwall	78.18
Dolomite	21.82
Bentonite	2.09
Cobalt Carbonate	1.02
Water	80



1-3 Second Dip



2-3 Second Dips



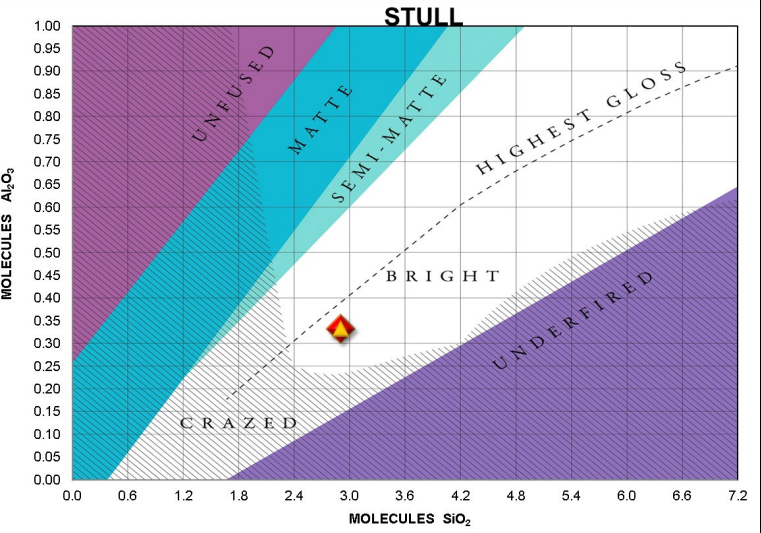
Reduction



Reduction

UMF

SiO ₂ :Al ₂ O ₃ Ratio 8.72 :1		Alkali Metals 0.21		Alkaline Earths 0.79	
SiO ₂ 2.98	Collective "Al ₂ O ₃ " 0.34	Na ₂ O 0.11	K ₂ O 0.09	MgO 0.36	CaO 0.42
B ₂ O ₃	Al ₂ O ₃ 0.34	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.01
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



EUMF

SiO ₂ :Al ₂ O ₃ Ratio 8.72 :1		Alkali Metals 0.20		Alkaline Earths 0.80	
SiO ₂ 2.90	Collective "Al ₂ O ₃ " 0.33	Na ₂ O 0.11	K ₂ O 0.09	MgO 0.36	CaO 0.41
B ₂ O ₃	Al ₂ O ₃ 0.33	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.01
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO 0.03



Ceramic
Materials
Workshop

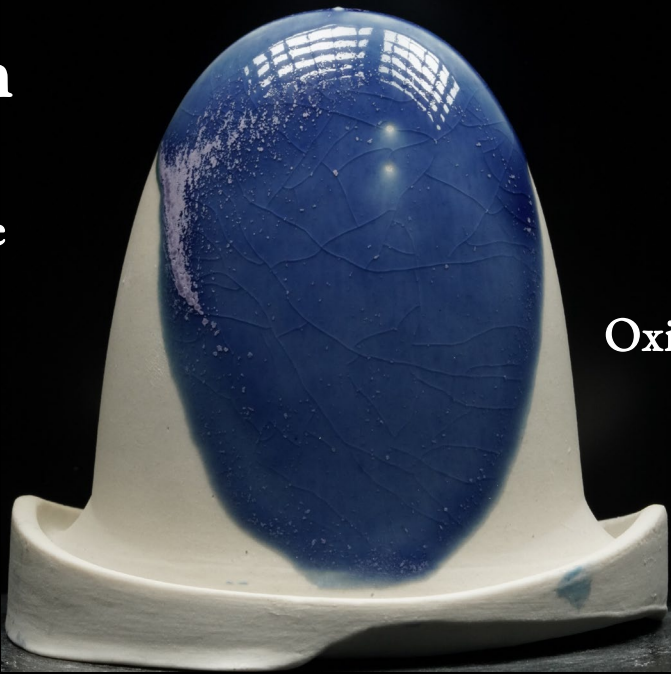
Purple Rain

Chemical Match

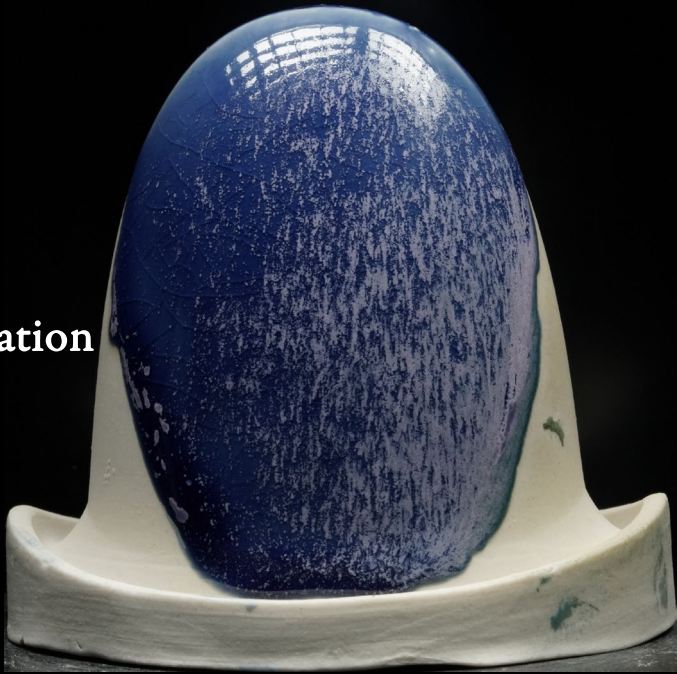
Lithium Carbonite

062722 -42

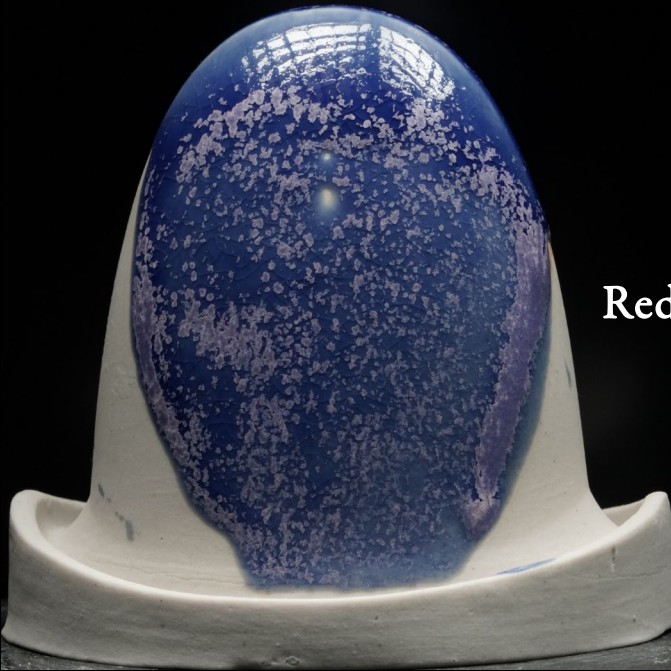
Lithium Carb	6.08
Dolomite	29.13
EPK	29.35
Flint	35.44
Cobalt Carbonate	1.02
Water	60



1-3 Second Dip



2-3 Second Dips



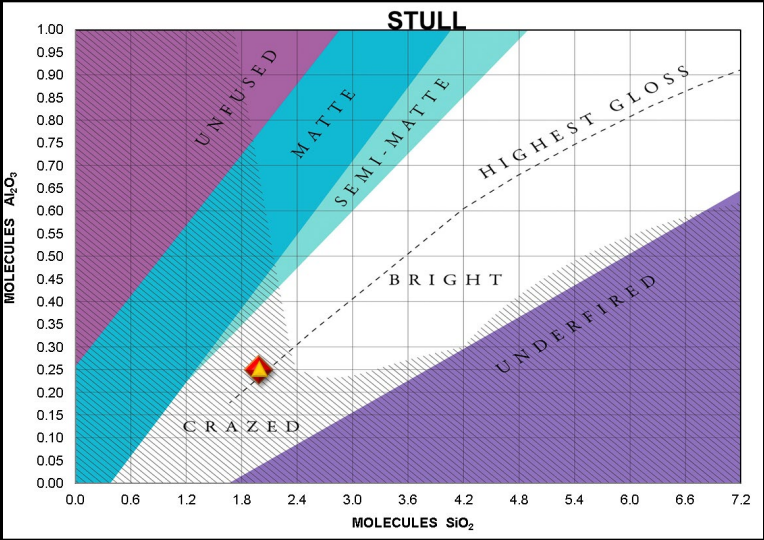
Reduction



Oxidation

UMF

SiO ₂ :Al ₂ O ₃ Ratio 7.82 :1		Alkali Metals 0.21		Alkaline Earths 0.79	
SiO ₂ 2.03	Collective "Al ₂ O ₃ " 0.26	Na ₂ O	K ₂ O 0.00	MgO 0.39	CaO 0.39
B ₂ O ₃	Al ₂ O ₃ 0.26	Li ₂ O 0.20	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.01
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



EUMF

SiO ₂ :Al ₂ O ₃ Ratio 7.82 :1		Alkali Metals 0.20		Alkaline Earths 0.80	
SiO ₂ 1.99	Collective "Al ₂ O ₃ " 0.25	Na ₂ O	K ₂ O 0.00	MgO 0.38	CaO 0.38
B ₂ O ₃	Al ₂ O ₃ 0.25	Li ₂ O 0.20	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.01
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO 0.02



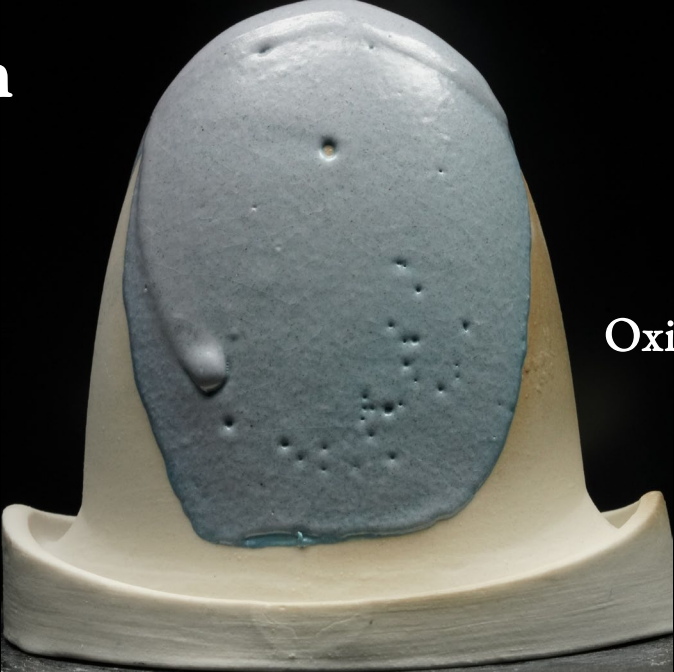
Ceramic
Materials
Workshop

Purple Rain

Chemical Match

Talc
062722 -43

Neph Sy	45.42
Talc	46.28
EPK	6.24
Flint	2.06
Cobalt Carbonate	1.02
Water	70



1-3 Second Dip



2-3 Second Dips



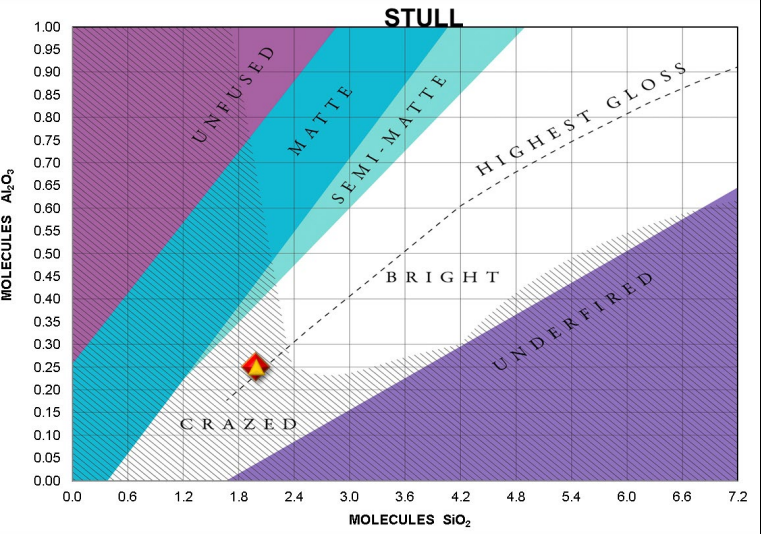
Reduction



Oxidation

UMF

SiO ₂ :Al ₂ O ₃ Ratio 7.90 :1		Alkali Metals 0.21		Alkaline Earths 0.79	
SiO ₂ 2.03	Collective "Al ₂ O ₃ " 0.26	Na ₂ O 0.16	K ₂ O 0.05	MgO 0.71	CaO 0.07
B ₂ O ₃	Al ₂ O ₃ 0.26	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.01
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



EUMF

SiO ₂ :Al ₂ O ₃ Ratio 7.90 :1		Alkali Metals 0.20		Alkaline Earths 0.80	
SiO ₂ 1.99	Collective "Al ₂ O ₃ " 0.25	Na ₂ O 0.16	K ₂ O 0.05	MgO 0.70	CaO 0.07
B ₂ O ₃	Al ₂ O ₃ 0.25	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.01
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO 0.02



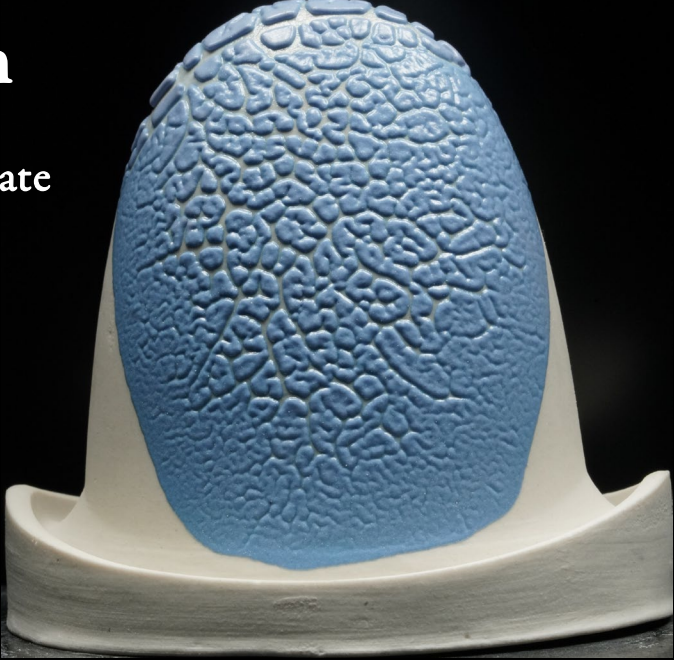
Ceramic
Materials
Workshop

Purple Rain

Chemical Match
Magnesium Carbonate

062722 -44

Neph Sy	41.82
Mag Carbonate	27.76
EPK	5.35
Flint	25.06
Cobalt Carbonate	1.02
Water	180



1-3 Second Dip

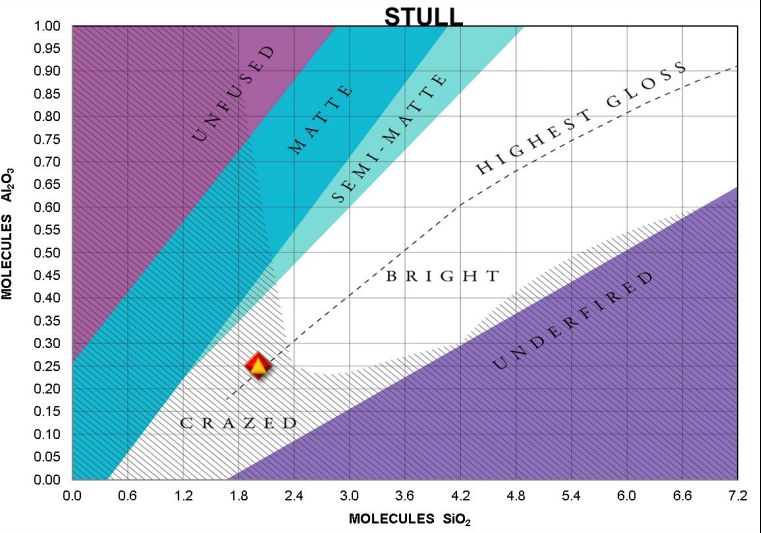


2-3 Second Dips



UMF

SiO ₂ :Al ₂ O ₃ Ratio 7.98 :1		Alkali Metals 0.21		Alkaline Earths 0.79	
SiO ₂ 2.05	Collective "Al ₂ O ₃ " 0.26	Na ₂ O 0.16	K ₂ O 0.05	MgO 0.78	CaO 0.01
B ₂ O ₃	Al ₂ O ₃ 0.26	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.00
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



EUMF

SiO ₂ :Al ₂ O ₃ Ratio 7.98 :1		Alkali Metals 0.20		Alkaline Earths 0.80	
SiO ₂ 2.01	Collective "Al ₂ O ₃ " 0.25	Na ₂ O 0.16	K ₂ O 0.04	MgO 0.77	CaO 0.01
B ₂ O ₃	Al ₂ O ₃ 0.25	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.00
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO 0.02



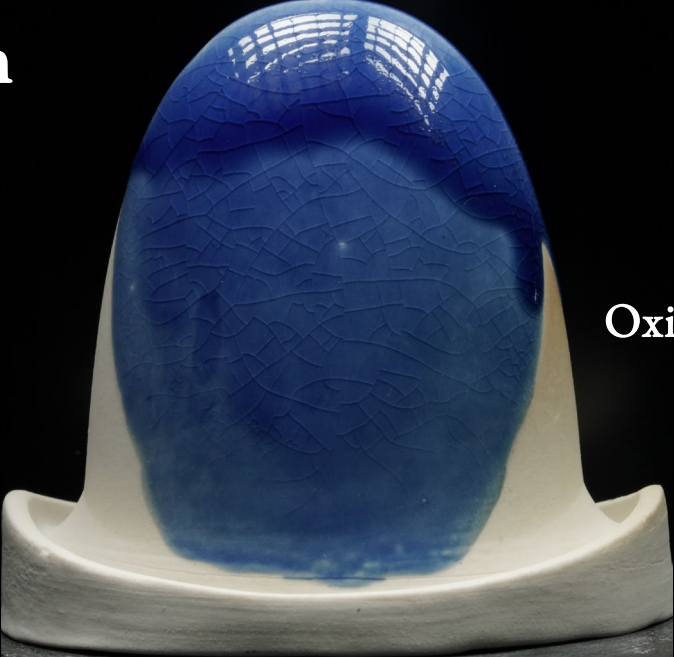
Ceramic
Materials
Workshop

Purple Rain

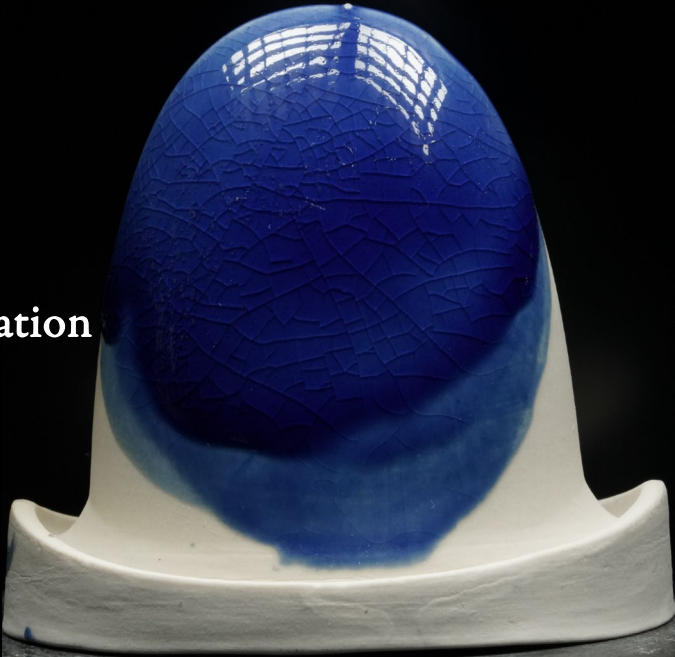
Chemical Match

Whiting
062722 -45

Neph Sy	39.55
Whiting	31.77
EPK	4.99
Flint	23.69
Cobalt Carbonate	1.01
Water	60



1-3 Second Dip



2-3 Second Dips

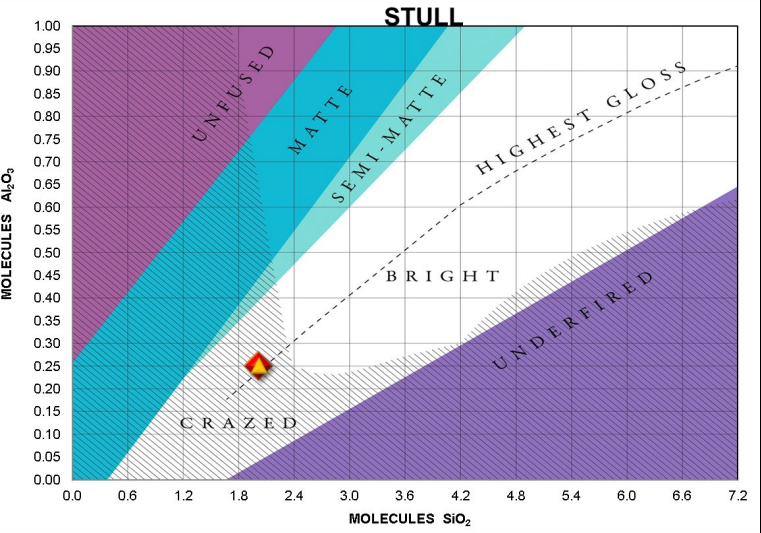


Reduction

Oxidation

UMF

SiO ₂ :Al ₂ O ₃ Ratio 8.01 :1		Alkali Metals 0.21		Alkaline Earths 0.79	
SiO ₂ 2.06	Collective "Al ₂ O ₃ " 0.26	Na ₂ O 0.16	K ₂ O 0.05	MgO 0.00	CaO 0.79
B ₂ O ₃	Al ₂ O ₃ 0.26	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.00
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



EUMF

SiO ₂ :Al ₂ O ₃ Ratio 8.01 :1		Alkali Metals 0.20		Alkaline Earths 0.80	
SiO ₂ 2.02	Collective "Al ₂ O ₃ " 0.25	Na ₂ O 0.16	K ₂ O 0.05	MgO 0.00	CaO 0.77
B ₂ O ₃	Al ₂ O ₃ 0.25	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.00
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO 0.02



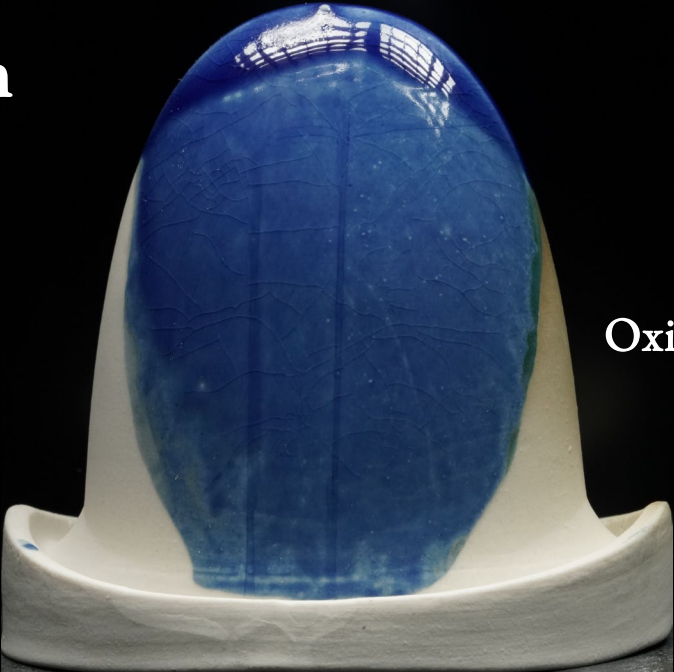
Ceramic
Materials
Workshop

Purple Rain

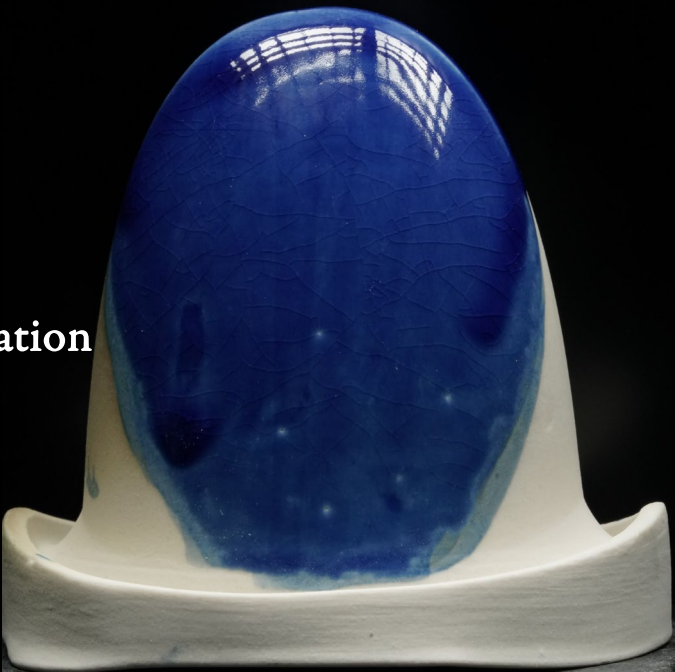
Chemical Match
Wollastonite

062722 -46

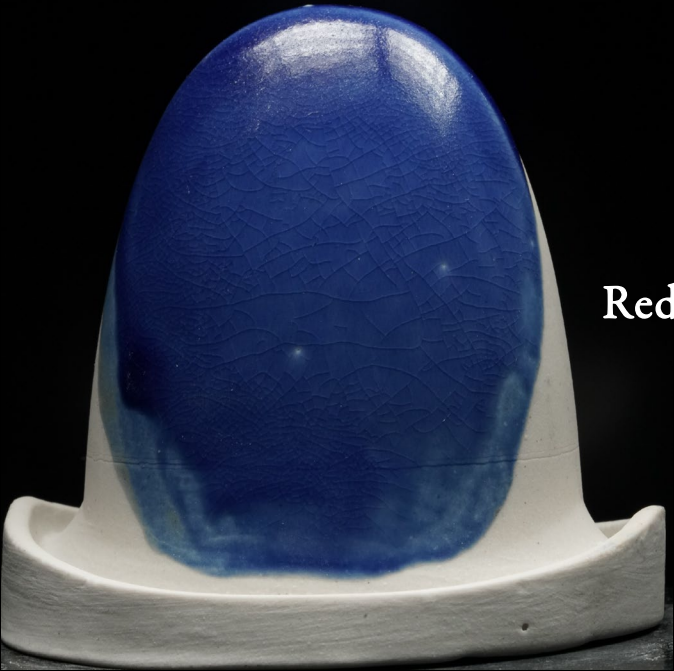
Neph Sy	45.59
Wollastonite	45.86
EPK	5.50
Flint	4.06
Cobalt Carbonate	1.02
Water	60



1-3 Second Dip



2-3 Second Dips



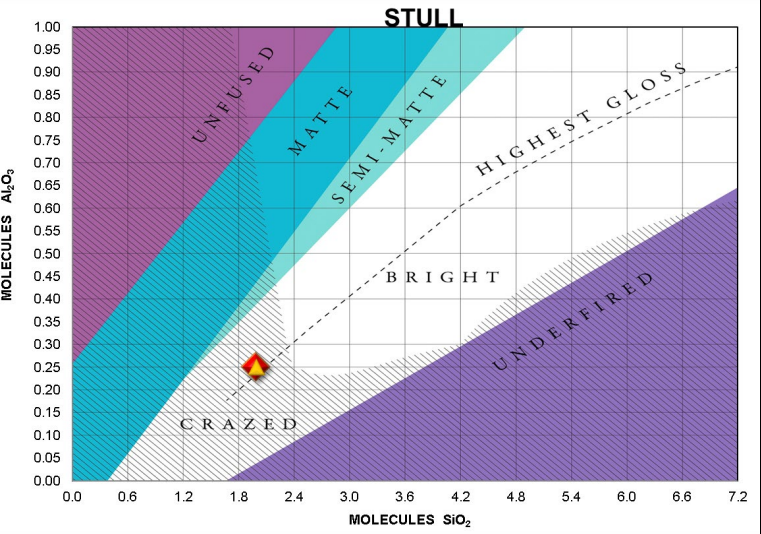
Reduction



Oxidation

UMF

SiO ₂ :Al ₂ O ₃ Ratio 7.91 :1		Alkali Metals 0.21		Alkaline Earths 0.79	
SiO ₂ 2.03	Collective "Al ₂ O ₃ " 0.26	Na ₂ O 0.16	K ₂ O 0.05	MgO 0.03	CaO 0.75
B ₂ O ₃	Al ₂ O ₃ 0.26	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.01
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



EUMF

SiO ₂ :Al ₂ O ₃ Ratio 7.91 :1		Alkali Metals 0.20		Alkaline Earths 0.80	
SiO ₂ 1.99	Collective "Al ₂ O ₃ " 0.25	Na ₂ O 0.16	K ₂ O 0.05	MgO 0.03	CaO 0.74
B ₂ O ₃	Al ₂ O ₃ 0.25	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.01
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO 0.02



Ceramic
Materials
Workshop

Purple Rain

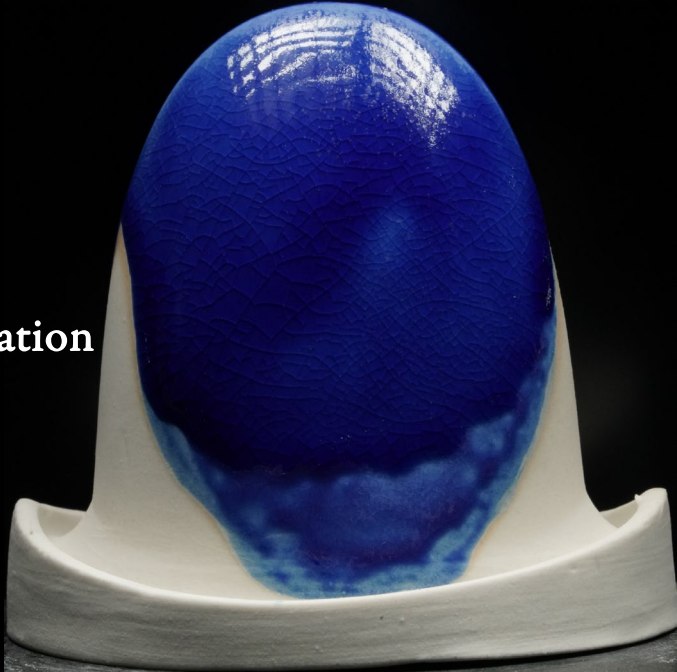
Chemical Match
Strontium Carbonate

062722 -47

Neph Sy	34.49
Strontium Carb	40.85
EPK	4.63
Flint	20.02
Cobalt Carbonate	1.02
Water	60



1-3 Second Dip



2-3 Second Dips



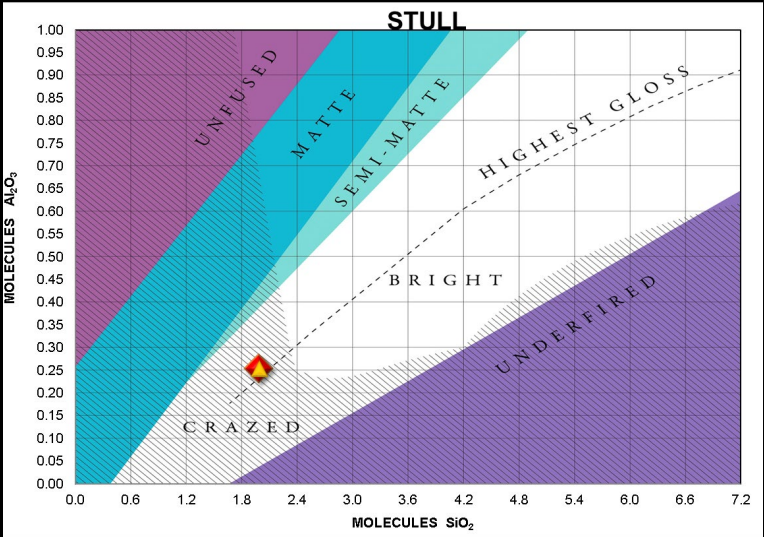
Reduction



Oxidation

UMF

SiO ₂ :Al ₂ O ₃ Ratio 7.84 :1		Alkali Metals 0.21		Alkaline Earths 0.79	
SiO ₂ 2.04	Collective "Al ₂ O ₃ " 0.26	Na ₂ O 0.16	K ₂ O 0.05	MgO 0.00	CaO 0.01
B ₂ O ₃	Al ₂ O ₃ 0.26	Li ₂ O	CuO	SrO 0.78	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.00
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



EUMF

SiO ₂ :Al ₂ O ₃ Ratio 7.84 :1		Alkali Metals 0.20		Alkaline Earths 0.80	
SiO ₂ 1.99	Collective "Al ₂ O ₃ " 0.25	Na ₂ O 0.16	K ₂ O 0.04	MgO 0.00	CaO 0.01
B ₂ O ₃	Al ₂ O ₃ 0.25	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.00
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO 0.02



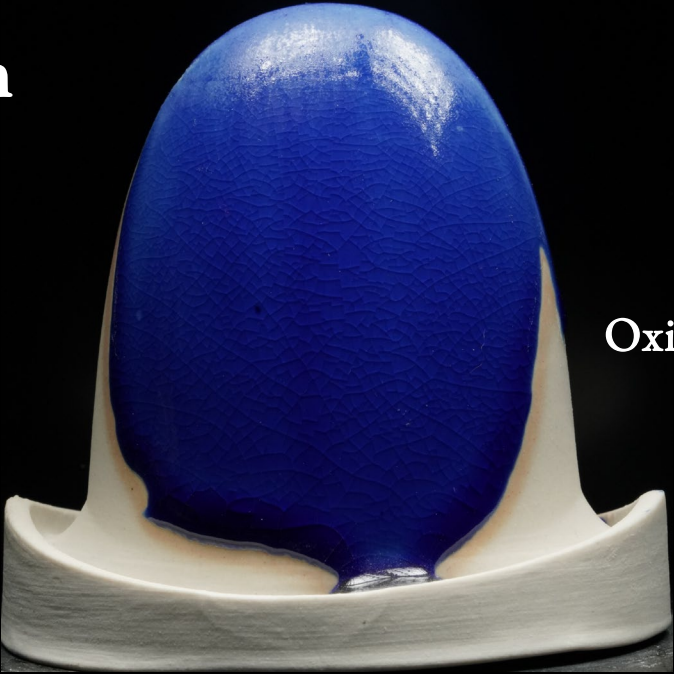
Ceramic
Materials
Workshop

Purple Rain

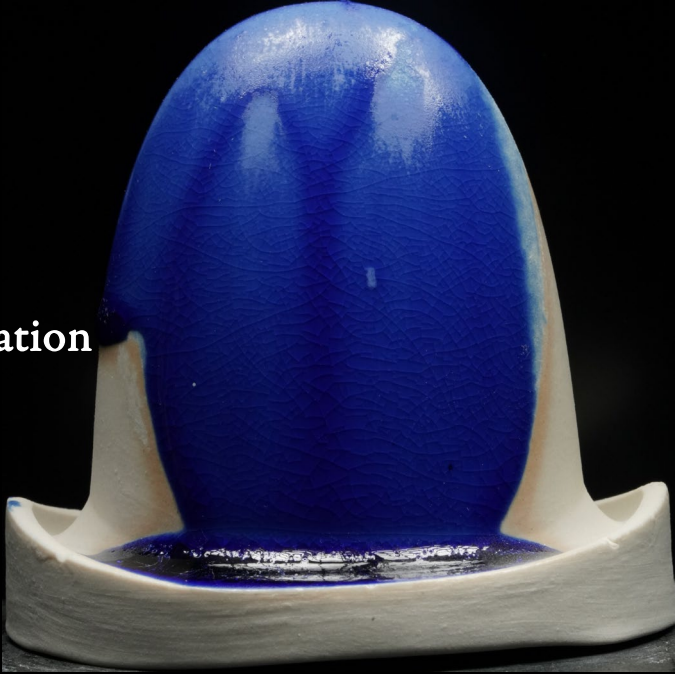
Chemical Match
Barium Carbonate

062722 -48

Neph Sy	30.40
Barium Carb	47.95
EPK	3.90
Flint	17.75
Cobalt Carbonate	1.02
Water	80



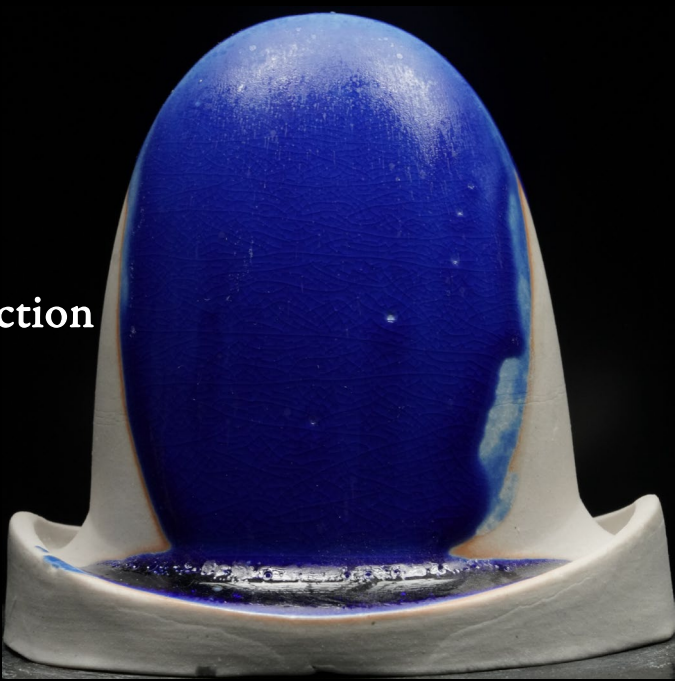
1-3 Second Dip



2-3 Second Dips



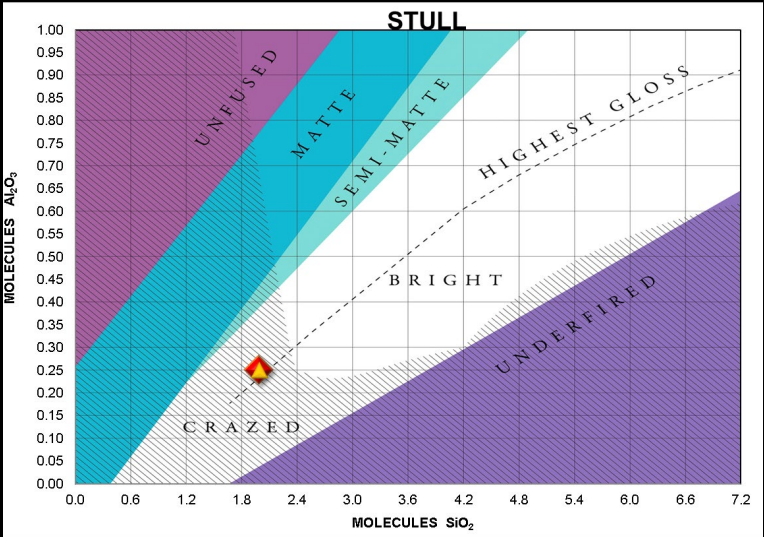
Reduction



Oxidation

UMF

SiO ₂ :Al ₂ O ₃ Ratio 7.91 :1		Alkali Metals 0.21		Alkaline Earths 0.79	
SiO ₂ 2.04	Collective "Al ₂ O ₃ " 0.26	Na ₂ O 0.16	K ₂ O 0.05	MgO 0.00	CaO 0.01
B ₂ O ₃	Al ₂ O ₃ 0.26	Li ₂ O	CuO	SrO	BaO 0.78
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.00
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



EUMF

SiO ₂ :Al ₂ O ₃ Ratio 7.91 :1		Alkali Metals 0.20		Alkaline Earths 0.80	
SiO ₂ 1.99	Collective "Al ₂ O ₃ " 0.25	Na ₂ O 0.16	K ₂ O 0.04	MgO 0.00	CaO 0.01
B ₂ O ₃	Al ₂ O ₃ 0.25	Li ₂ O	CuO	SrO	BaO 0.76
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.00
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO 0.03



Ceramic
Materials
Workshop

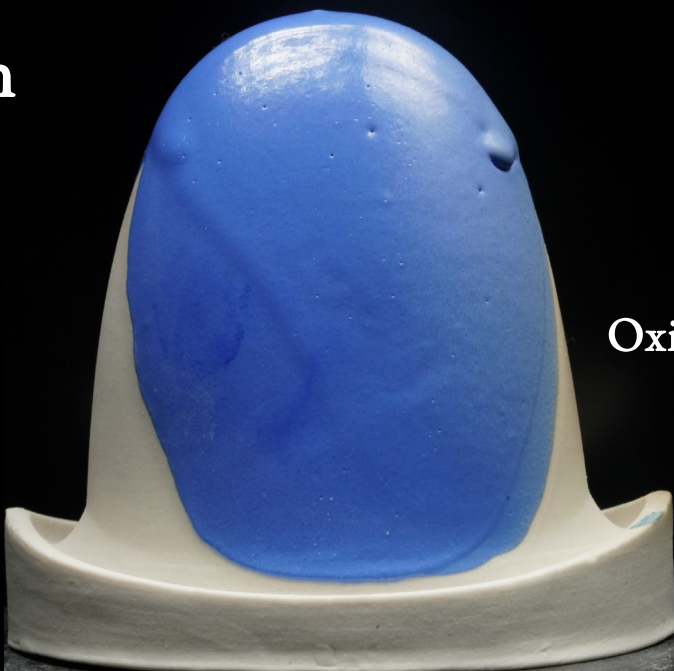
Purple Rain

Chemical Match

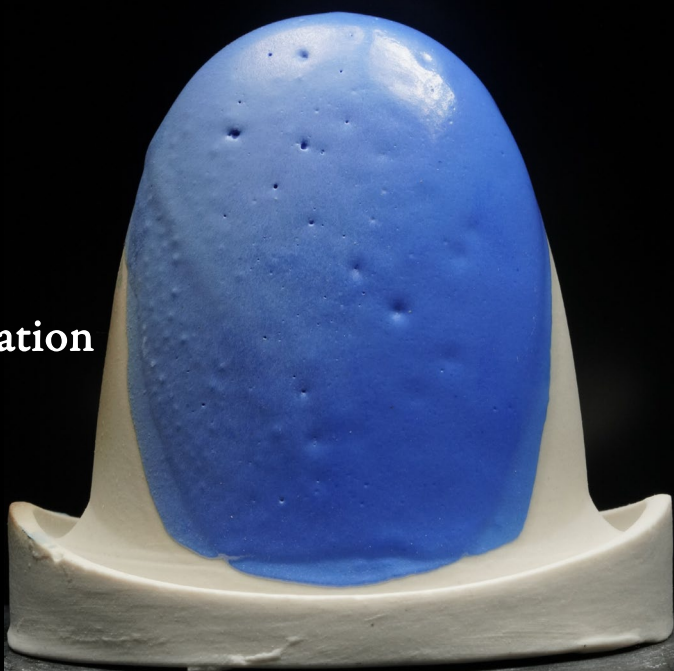
Zinc Oxide

062722 -49

Neph Sy	42.21
Zinc Oxide	27.73
EPK	5.40
Flint	24.66
Cobalt Carbonate	1.02
Water	80



1-3 Second Dip



2-3 Second Dips

Oxidation



1-3 Second Dip

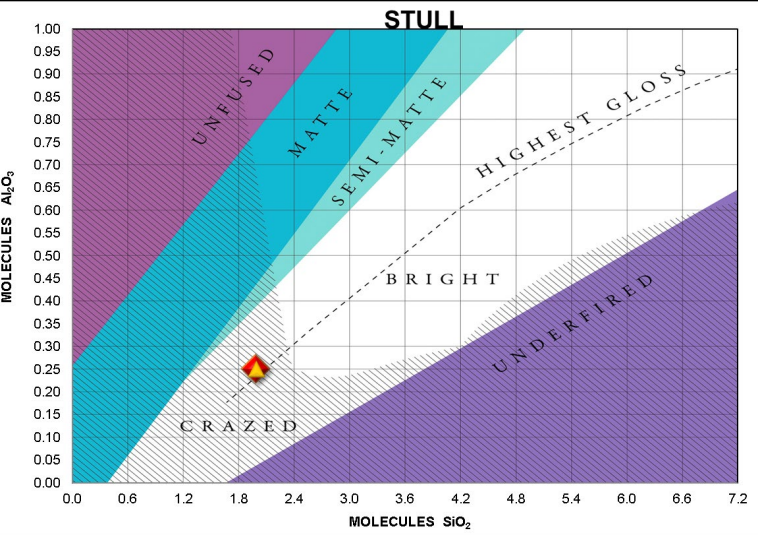


2-3 Second Dips

Reduction

UMF

SiO ₂ :Al ₂ O ₃ Ratio 7.91 :1		Alkali Metals 0.21		Alkaline Earths 0.79	
SiO ₂ 2.03	Collective "Al ₂ O ₃ " 0.26	Na ₂ O 0.16	K ₂ O 0.05	MgO 0.00	CaO 0.01
B ₂ O ₃	Al ₂ O ₃ 0.26	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO 0.78	FeO 0.00
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



EUMF

SiO ₂ :Al ₂ O ₃ Ratio 7.91 :1		Alkali Metals 0.20		Alkaline Earths 0.80	
SiO ₂ 1.99	Collective "Al ₂ O ₃ " 0.25	Na ₂ O 0.16	K ₂ O 0.04	MgO 0.00	CaO 0.01
B ₂ O ₃	Al ₂ O ₃ 0.25	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO 0.77	FeO 0.00
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO 0.02



Ceramic
Materials
Workshop

Purple Rain

Chemical Match

Bone Ash

062722 -50

Neph Sy	34.88
Bone Ash	39.60
EPK	4.60
Flint	20.93
Cobalt Carbonate	1.02
Water	80



1-3 Second Dip



2-3 Second Dips



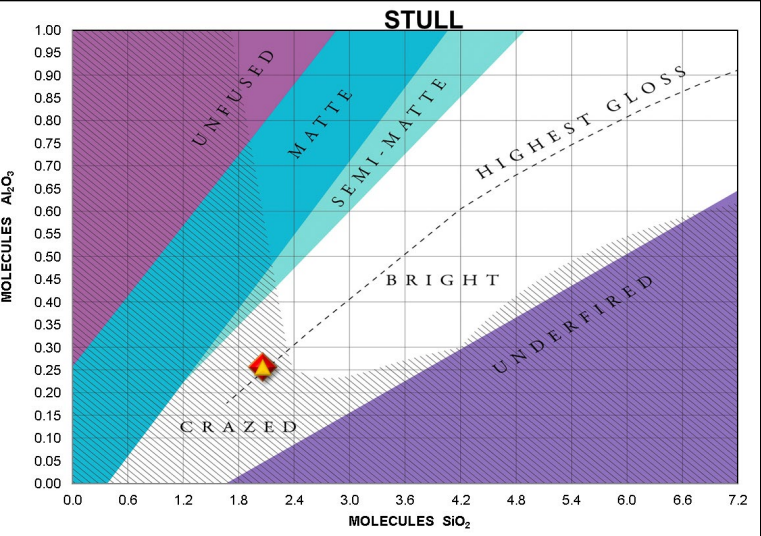
Reduction



Oxidation

UMF

SiO ₂ :Al ₂ O ₃ Ratio 8.00 :1		Alkali Metals 0.21		Alkaline Earths 0.79	
SiO ₂ 2.06	Collective "Al ₂ O ₃ " 0.26	Na ₂ O 0.16	K ₂ O 0.05	MgO 0.00	CaO 0.79
B ₂ O ₃	Al ₂ O ₃ 0.26	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.00
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅ 0.43		MnO ₂	CoO



EUMF

SiO ₂ :Al ₂ O ₃ Ratio 8.00 :1		Alkali Metals 0.20		Alkaline Earths 0.80	
SiO ₂ 2.01	Collective "Al ₂ O ₃ " 0.25	Na ₂ O 0.16	K ₂ O 0.05	MgO 0.00	CaO 0.77
B ₂ O ₃	Al ₂ O ₃ 0.25	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.00
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅ 0.42		MnO ₂	CoO 0.02



Ceramic
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