OMB No. 3316-0062 Exp. Date: 05/31/2007

Typical Coal Quality Analysis

For each different quality of coal offered, the Offeror must provide the Typical Coal Quality Analysis that Offeror is capable of meeting on a continuous basis and representative of the quality of the coal actually to be shipped.

If offer is for prepared coal, an analysis for raw run-of-mine coal should also be included.

| Proximate Analysis (as received): Proximate Analysis (as received): Total Moisture % Total Moisture % Ash % Ash % Ash % Ash % Volatility % Volatility % Btu/lb Btu/lb Btu/lb * Sulfur % Sulfur % Grindability % Grindability % Ultimate Analysis (Dry Basis): Ultimate Analysis (Dry Basis): * Carbon % Carbon % Hydrogen % Hydrogen % Nitrogen % Nitrogen % Chlorine % Chlorine % Sulfur % Sulfur % Ash % Ash % Oxygen % Oxygen % Flourine % Ash Fusion Temperatures: Reducing Atmosphere Initial Deformation °F *Initial °F | Raw Run-of-Mine Coal Quality | | Prepared or Washed Coal Quality | |
|--|---|-------------|---|---------------|
| Ash % Ash % Volatility % Volatility % Btu/lb Btu/lb ** Sulfur % Sulfur % Grindability % Grindability % Ultimate Analysis (Dry Basis): ** Carbon % Loarbon % Carbon % Hydrogen % Hydrogen % Nitrogen % Nitrogen % Chlorine % Chlorine % Sulfur % Sulfur % Ash % Ash % Oxygen % Oxygen % Flourine % Flourine % Ash Fusion Temperatures: Reducing Atmosphere Initial Deformation F *Initial F Softening (H=W) F *F Deformation F *Softening (H=W) F *Softening (H=W) *F *F *Softening (H=W) *F *F | Proximate Analysis (as received): | | Proximate Analysis (as received): | |
| Volatility % Volatility % Btu/lb Btu/lb % Sulfur % Sulfur % Sulfur % Grindability % Grindability % Ultimate Analysis (Dry Basis): Ultimate Analysis (Dry Basis): Carbon % Carbon % Carbon % Hydrogen % Hydrogen % Nitrogen % Nitrogen % Chlorine % Chlorine % Sulfur % Sulfur % Ash % Ash % Oxygen % Oxygen % Flourine % Flourine % Ash Fusion Temperatures: Reducing Atmosphere Initial Deformation \$\frac{\text{F}}{\text{F}}\$ Peformation \$\frac{\text{F}}{\text{F}}\$ Softening (H=W) \$\frac{\text{F}}{\text{F}}\$ *Softening (H=W) | Total Moisture | % | Total Moisture | % |
| Btu/lb Btu/lb Btu/lb Sulfur % Sulfur % Grindability % Grindability % Ultimate Analysis (Dry Basis): Ultimate Analysis (Dry Basis): Carbon % Carbon % Carbon % Hydrogen % Hydrogen % Nitrogen % Nitrogen % Chlorine % Chlorine % Sulfur % Sulfur % Ash % Ash % Oxygen % Oxygen % Flourine % Flourine % Ash Fusion Temperatures: Reducing Atmosphere Initial Deformation F *Initial F Softening (H=W) F *F Deformation F *Softening (H=W) F *F *Softening (H=W) F *F *Softening (H=W) F *F | Ash | <u></u> % | Ash | % |
| Sulfur % Sulfur % Grindability % Grindability % Ultimate Analysis (Dry Basis): Ultimate Analysis (Dry Basis): Sulfur % Carbon % Carbon % Hydrogen % Hydrogen % Nitrogen % Chlorine % Chlorine % Chlorine % Sulfur % Sulfur % Ash % Ash % Oxygen % Oxygen % Flourine % Flourine % ASH ANALYSIS Ash Fusion Temperatures: Reducing Atmosphere Reducing Atmosphere Reducing Atmosphere Initial °F Initial Deformation °F *Initial °F Softening (H=W) °F Deformation °F *Softening (H=W) °F *Softening (H=W) °F | Volatility | <u></u> % | Volatility | % |
| Grindability % Grindability % Ultimate Analysis (Dry Basis): Ultimate Analysis (Dry Basis): % Carbon % Carbon % Hydrogen % Hydrogen % Nitrogen % Nitrogen % Chlorine % Chlorine % Sulfur % Sulfur % Ash % Ash % Oxygen % Oxygen % Flourine % Flourine % Ash Fusion Temperatures: Reducing Atmosphere Initial Deformation \$\frac{\text{F}}{\text{F}} \text{Initial} \text{\$\frac{\text{F}}{\text{F}}} \text{\$\frac{\text{F}}{\text{F}}} \text{ Deformation} \text{\$\frac{\text{F}}{\text{F}}} \text{ \$\frac{\text{F}}{\text{F}} \text{ Poftening (H=W) \text{\$\text{F}}{\text{F}} \text{ \$\text{F}} \text{ \$\text{Softening (H=W) \text{\$\text{F}}{\text{F}}} \text{ \$\text{Softening (H=W) \text{\$\text{F}}{\text{F}}} \text{ \$\text{Softening (H=W) \text{\$\text{F}}{\text{F}} \text{ \$\text{Softening (H=W) \text{\$\text{F}}{\text{F}}} \text{ \$\text{Softening (H=W) \text{\$\text{F}}{\text{F}} \text{ \$\text{Softening (H=W) \text{\$\text{F}}{\text{F}} \text{ \$\text{Softening (H=W) \text{\$\text{F}}{\text{Softening (H=W) \text{\$\text{F}}{\text{Softening (H=W) \text{\$\text{F}}{\text{Softening (H=W) \text{\$\text{F}}{\text{Softening (H=W) \text{\$\text{F}}{\text{Softening (H=W) \text{\$\text{F}}{Soft | Btu/lb | | Btu/lb | |
| Ultimate Analysis (Dry Basis): Ultimate Analysis (Dry Basis): Carbon % Carbon % Hydrogen % Hydrogen % Nitrogen % Nitrogen % Chlorine % Chlorine % Sulfur % Sulfur % Ash % Ash % Oxygen % Oxygen % Flourine % Flourine % Ash Fusion Temperatures: Reducing Atmosphere Initial Deformation \$\text{F}\$ *Initial \$\text{F}\$ Softening (H=W) \$\text{F}\$ *Softening (H=W) \$\text{F}\$ *Softe | Sulfur | <u></u> % | Sulfur | <u></u> |
| Carbon % Carbon % Hydrogen % Hydrogen % Nitrogen % Nitrogen % Chlorine % Chlorine % Sulfur % Sulfur % Ash % Ash % Oxygen % Oxygen % Flourine % Flourine % Ash Fusion Temperatures: Reducing Atmosphere Initial Deformation \$\times\$ Reducing Atmosphere Initial Deformation \$\times\$ F *Initial \$\times\$ F Softening (H=W) \$\times\$ Deformation \$\times\$ F Softening (H=I/2W) \$\times\$ F *Softening (H=W) \$\times\$ F | Grindability | <u></u> % | Grindability | % |
| Hydrogen % Hydrogen % Nitrogen % Nitrogen % Chlorine % Chlorine % Sulfur % Sulfur % Ash % Ash % Oxygen % Oxygen % Flourine % Flourine % Ash Fusion Temperatures: Reducing Atmosphere Initial Deformation \$\times \text{Prinitial} \tex | Ultimate Analysis (Dry Basis): | | Ultimate Analysis (Dry Basis): | |
| Nitrogen % Nitrogen % Chlorine % Chlorine % Sulfur % Sulfur % Ash % Ash % Oxygen % Oxygen % Flourine % Flourine % Ash Fusion Temperatures: Reducing Atmosphere Initial Deformation Practical Sulfur Ash Proving Ash Ash Ash Ash Ash Ash Ash As | Carbon | % | Carbon | % |
| Chlorine % Chlorine % Sulfur % Sulfur % Ash % Ash % Oxygen % Oxygen % Flourine % Flourine % Ash Fusion Temperatures: Reducing Atmosphere Initial Deformation \$\text{F}\$ Softening (H=W) \$\text{F}\$ Deformation \$\text{F}\$ *Softening (H=W) \$\text{F}\$ | Hydrogen | % | Hydrogen | % |
| Sulfur % Sulfur % Ash % Ash % Oxygen % Oxygen % Flourine % Flourine % ASH ANALYSIS Ash Fusion Temperatures: Reducing Atmosphere Initial Deformation \$\times\$ F Softening (H=W) \$\times\$ F Deformation \$\times\$ F Softening (H=W) \$\times\$ F *Softening (H=W) \$\times\$ F *Softening (H=W) \$\times\$ F | Nitrogen | % | Nitrogen | % |
| Ash % Ash % Oxygen % Oxygen % Flourine % Flourine % ASH ANALYSIS Ash Fusion Temperatures: Reducing Atmosphere Initial Deformation \$\times\$F\$ *Initial \$\times\$F\$ Softening (H=W) \$\times\$F\$ Deformation \$\times\$F\$ *Softening (H=W) *Soften | Chlorine | % | Chlorine | % |
| Oxygen % Oxygen % Flourine % Flourine % ASH ANALYSIS Ash Fusion Temperatures: Reducing Atmosphere Initial Deformation \$\times\$ F Softening (H=W) Softening (H=W) \$\times\$ F *Initial \$\times\$ F Deformation \$\times\$ Softening (H=W) \$\times\$ F *Softening (H=W) \$\times\$ F *Softening (H=W) \$\times\$ F *Softening (H=W) \$\times\$ F | Sulfur | % | Sulfur | % |
| Flourine % ASH ANALYSIS Ash Fusion Temperatures: Reducing Atmosphere Initial Deformation | Ash | % | Ash | % |
| ASH ANALYSIS Ash Fusion Temperatures: Reducing Atmosphere Initial Deformation Softening (H=W) Softening (H=1/2W) Ash Fusion Temperatures: Reducing Atmosphere **Initial* **F Deformation F **Softening (H=W) F **Softening (H=W) **F | Oxygen | % | Oxygen | % |
| Ash Fusion Temperatures: Ash Fusion Temperatures: Reducing Atmosphere Reducing Atmosphere Initial Deformation °F *Initial °F Softening (H=W) °F Deformation °F Softening (H=1/2W) °F *Softening (H=W) °F | Flourine | % | Flourine | % |
| Ash Fusion Temperatures: Ash Fusion Temperatures: Reducing Atmosphere Reducing Atmosphere Initial Deformation °F *Initial °F Softening (H=W) °F Deformation °F Softening (H=1/2W) °F *Softening (H=W) °F | | V C LI VI | MAI VCIC | |
| Reducing Atmosphere Reducing Atmosphere Initial Deformation °F *Initial °F Softening (H=W) °F Deformation °F Softening (H=1/2W) °F *Softening (H=W) °F | | АЭП АІ | | |
| Initial Deformation °F *Initial °F Softening (H=W) °F Deformation °F Softening (H=1/2W) °F *Softening (H=W) °F | · | | | |
| Softening (H=W) "F Deformation "F Softening (H=1/2W) "F *Softening (H=W) "F | | | - · · · · · · · · · · · · · · · · · · · | |
| Softening (H=1/2W) | Initial Deformation | | *Initial | |
| <u> </u> | | | | |
| | Softening (H=1/2W) | | <u> </u> | |
| Fluid °F Softening (H=1/2W) °F | Fluid | | <u> </u> | |
| °F | | °F | | °F |
| Oxidizing Atmosphere Oxidizing Atmosphere | | | · | |
| Initial Deformation °F Initial Deformation °F | | | | |
| Softening (H=W) °F Softening (H=W) °F | | °F | _ · · · · · · · · · · · · · · · · · · · | °F |
| Hemispherical Hemispherical | | | • | |
| (H=1/2W) °F (H=1/2W) °F | | | • | |
| Fluid °F Fluid °F | Fluid | °F | Fluid | °F |
| Mineral Analysis of Ash: % Mineral Analysis of Ash: % | Mineral Analysis of Ash: | % | Mineral Analysis of Ash: | % |
| Phos Pentoxide (P_2O_5) % Phos Pentoxide (P_2O_5) % | | | | |
| Silica (SiO ₂) | | | | |
| Ferric Oxide (Fe ₂ O ₃) | • | | <u></u> | |
| Alumina (Al_2O_3) % Alumina (Al_2O_3) % | | | | |
| Titania (TiO ₂) % Titania (TiO ₂) % | | | | |
| Lime (CaO) % Lime (CaO) % | | | | |
| Magnesia (MgO) % Magnesia (MgO) % | • • | | - · · · · · · · · · · · · · · · · · · · | |
| Sulfur Trioxide (SO ₃) % Sulfur Trioxide (SO ₃) % | | | | |
| Potassium Oxide (K_2O) % Potassium Oxide (K_2O) % | | | | |
| Sodium Oxide (Na ₂ O) % Sodium Oxide (Na ₂ O) % | • | | | |