



Canada Coking Conference Fort McMurray, AB Canada, October 2012

Safe, Automated, Pet Coke Dewatering

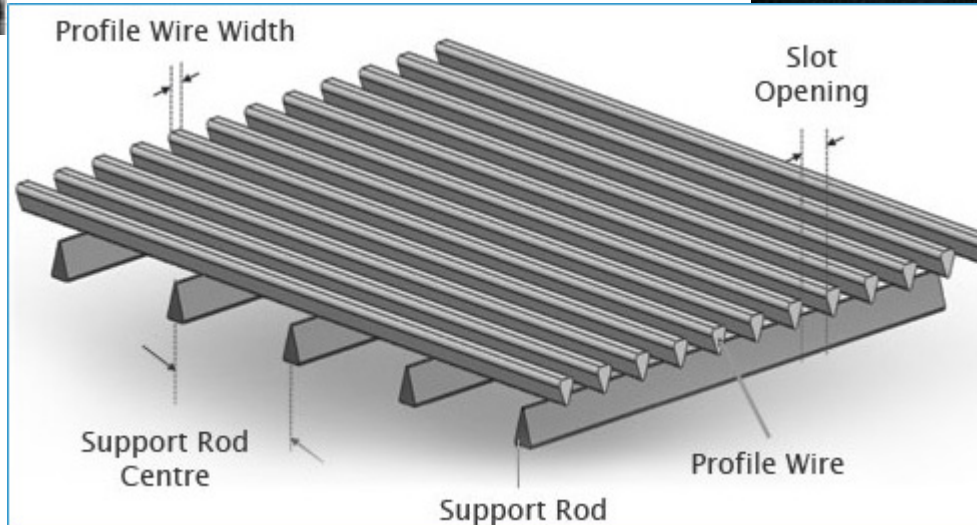
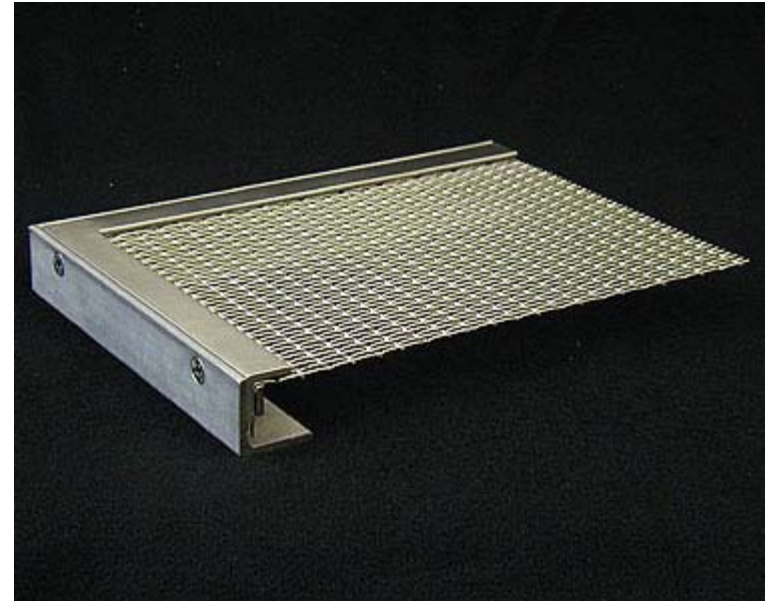
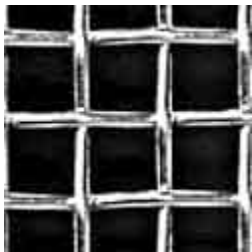
Oscar Mathis, Technical Director

815.444.3516

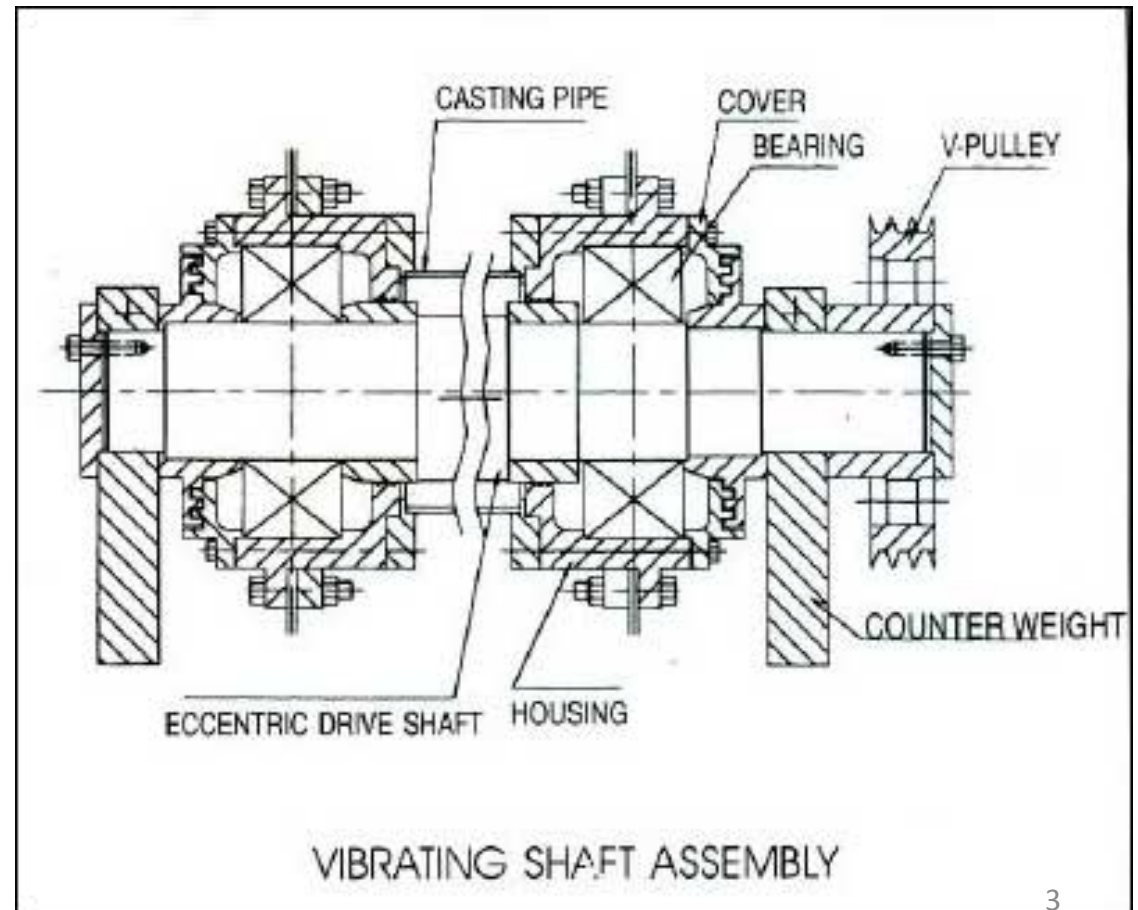
OMathis@generalkinematics.com



Antiquated Dewatering Screen Technology



Old Screen Technology Incorporating Brute Force Drives



Star-Stop Transient Response

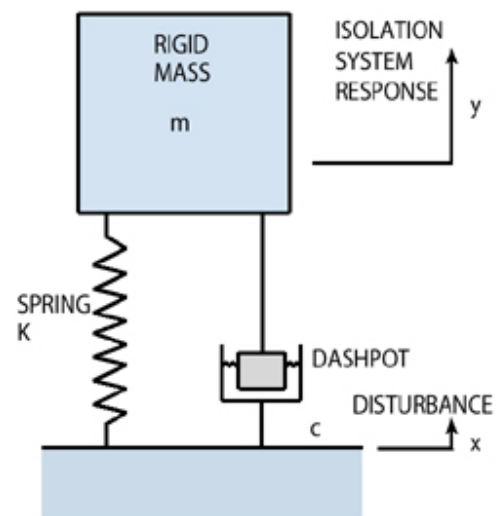
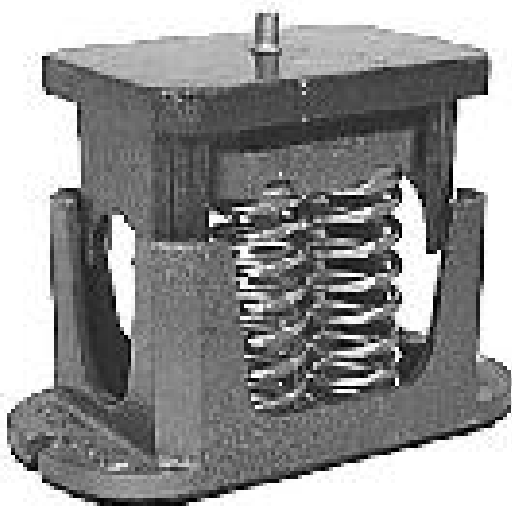
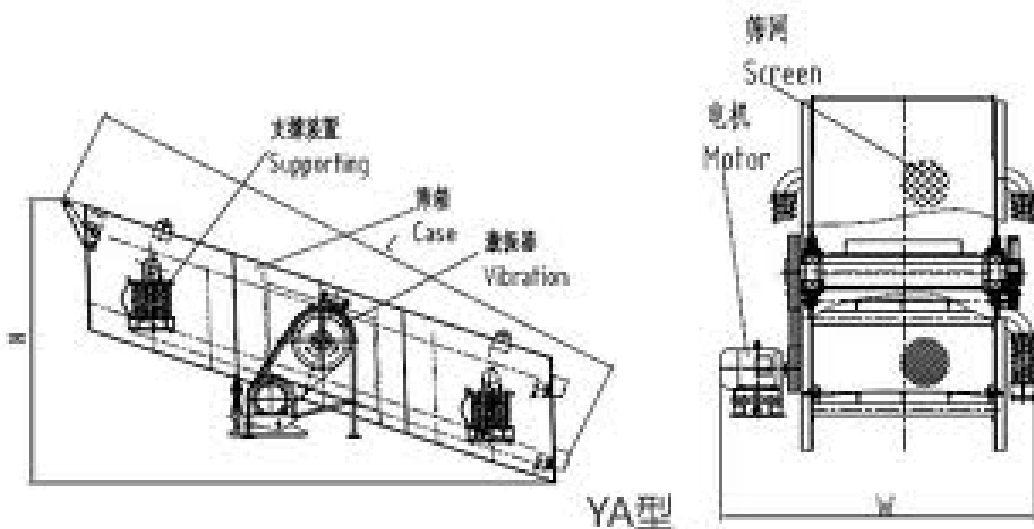


FIGURE 42.1
Typical Isolator Represented as a Mass, Spring and Dashpot

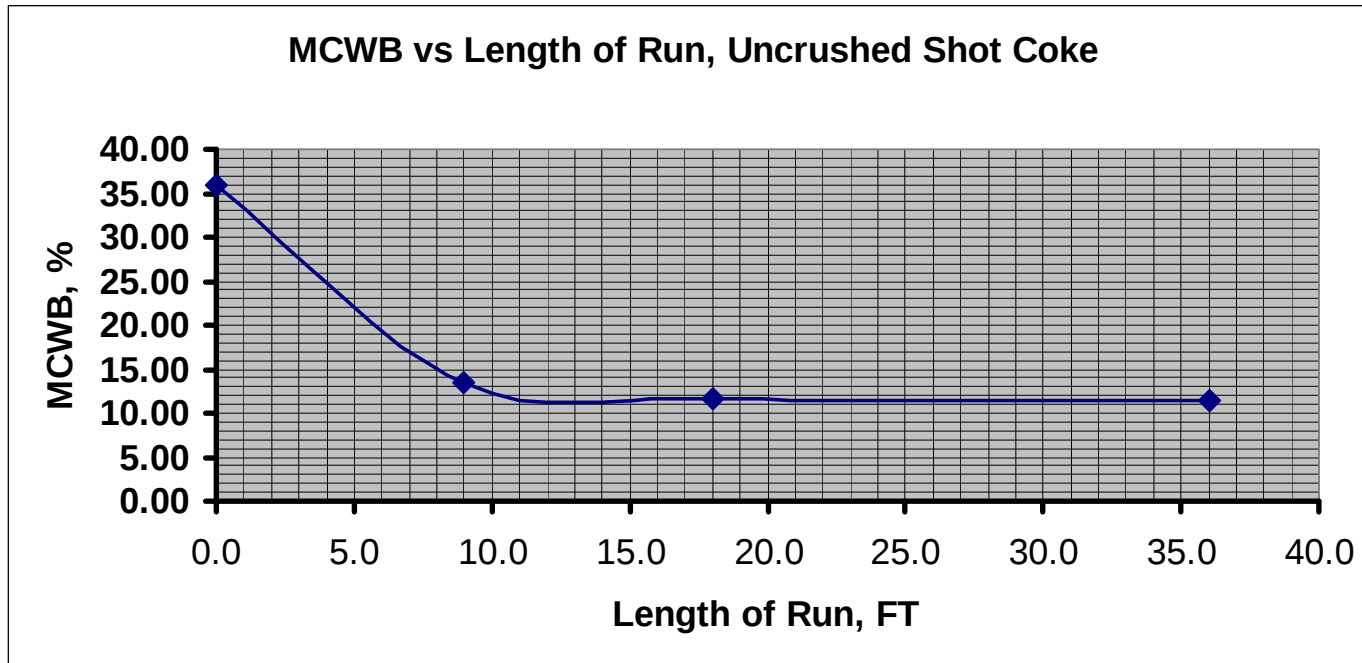
Initial GKC Lab Work



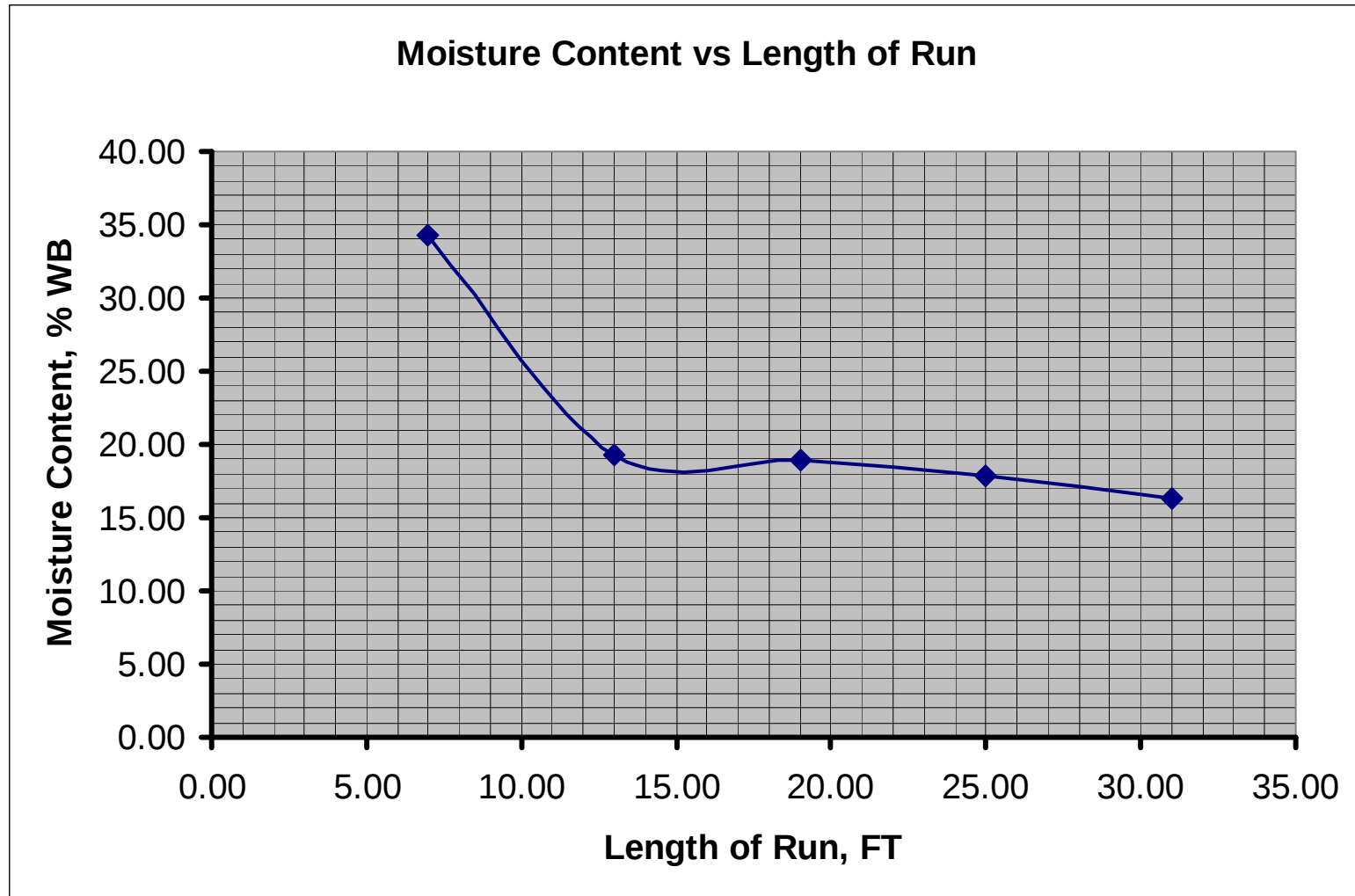
GKC Lab Dewatering



Uncrushed Shot Coke



Crushed Sponge Coke



Sluiceway Slurry Feed



Savage Port Arthur PabTex Field Work



Savage PabTex Sluiceway Slurry Feed Simulation



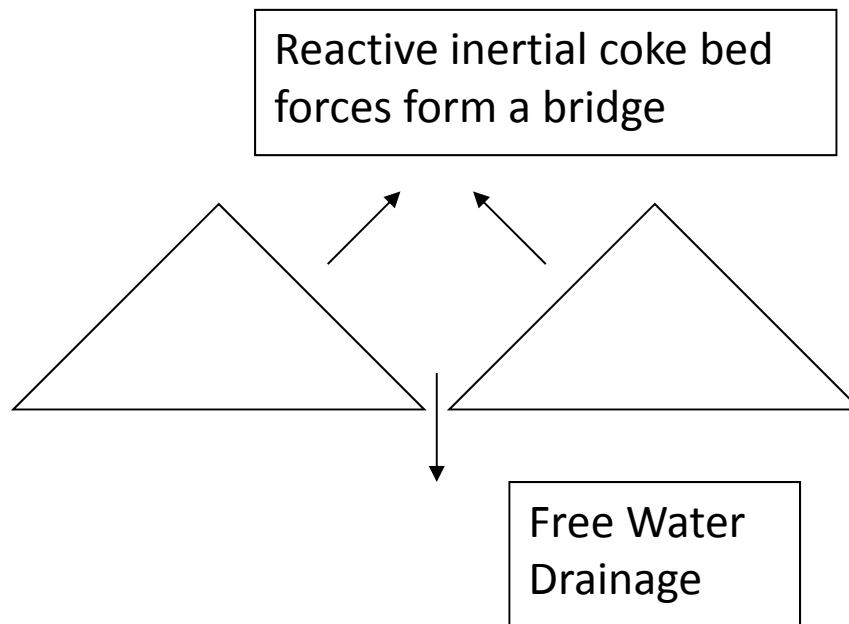
Savage El Dorado Production Unit in GKC Shop



DEWATERING DECK

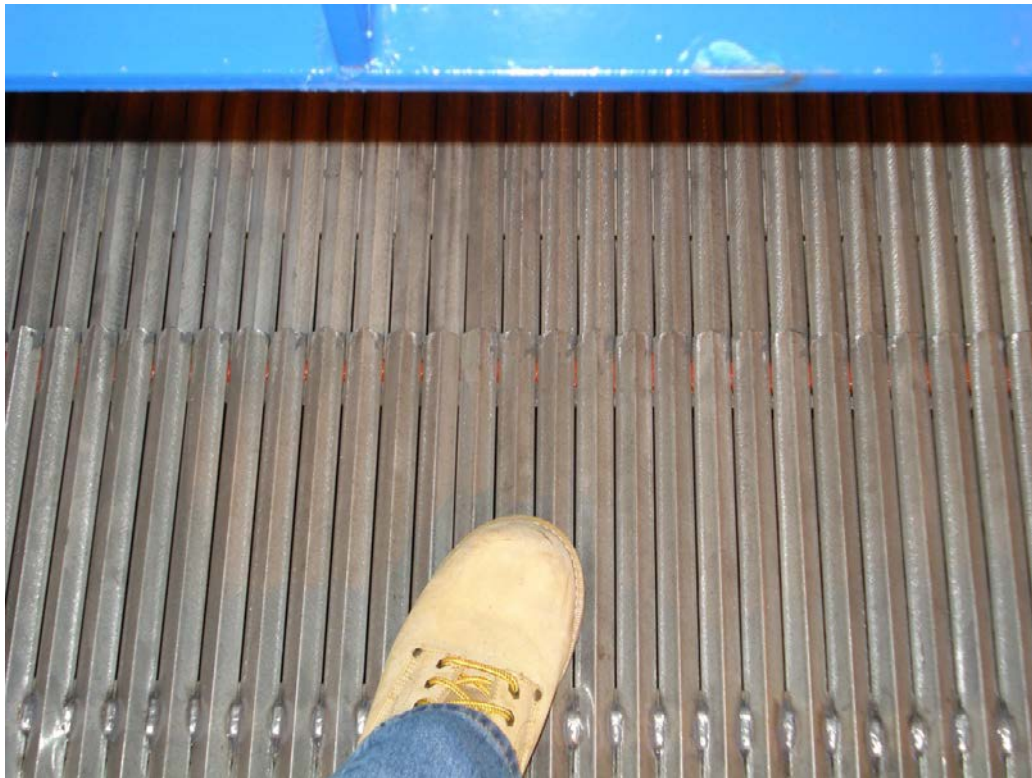


Material Bridge Formation





GKC Non-Blinding, Patented Dewatering Deck Construction





GKC Natural Frequency Technology



Rotating Unbalance Drive



Soft, Low Frequency Vibration Isolation Springs





Stationary, Track Mounted, or Carriage Car Arrangements





El Dorado Field Demonstration



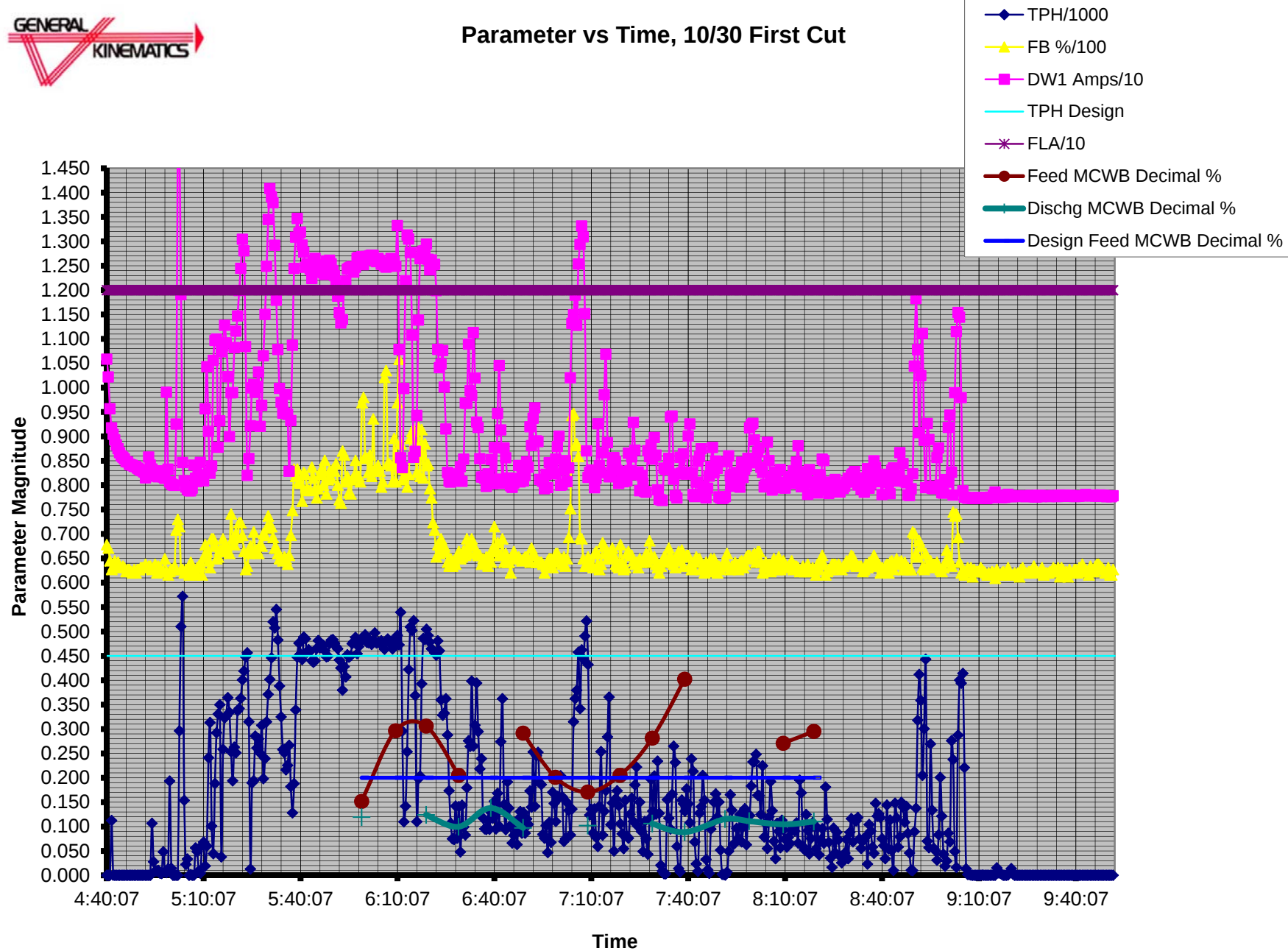


Savage El Dorado Production





Parameter vs Time, 10/30 First Cut



Hot/Burning Coke Upset



Feed Surges





Non-Blinding Deck



Pit Side Clamshell Dewatering, Beaumont TX



Overhead Grid & Hopper



Dewatered Pet Coke to Crusher



Crushed Pet Coke to Pivoting Transfer Belt Conveyor



Separated Water Returned to Pit



Powered Rail Mounted Traversing Carriage





Benefits

- Safety
- Minimize Coke Handling
- Minimize Personnel Requirements