

KIF Ponded Fly Ash Cell I



COMMERCIAL TESTING & ENGINEERING CO.

GENERAL OFFICES: 1919 SOUTH HIGHLAND AVE., SUITE 210-B, LOMBARD, ILLINOIS 60148 • TEL: 630-953-9300 FAX: 630-953-9306

SINCE 1908®



Member of the SGS Group (Société Générale de Surveillance)

May 30, 2002

ADDRESS ALL CORRESPONDENCE TO:

4665 PARIS STREET
SUITE B-200

TENNESSEE VALLEY AUTHORITY
1101 Market Street PSC 1A
Chattanooga TN 37402
RENEE B. MERRELL

SAMPLE No.: 257752
SAMPLE TYPE: FLY ASH
REMARKS: FLY

DENVER, CO 80239
TEL: (303) 373-4772
FAX: (303) 373-4791
www.comteco.com

Date Received March 5, 2002
Analysis report no. 72-470149

PROXIMATE ANALYSIS

ULTIMATE ANALYSIS

	As Received	Dry Basis
% Moisture	0.88	xxxxxxx
% Ash	97.14	98.00
% Volatile	< 0.01	< 0.01
% Fixed Carbon	<u>1.97</u>	<u>1.99</u>
	100.00	100.00
Btu/lb	183	185
% Sulfur	0.88	0.89
MAF Btu/lb	9250	

	As Received	Dry Basis
% Moisture	0.88	xxxxxxx
% Carbon	0.26	0.26
% Hydrogen	0.03	0.03
% Nitrogen	0.30	0.30
% Sulfur	0.88	0.89
% Ash	97.14	98.00
% Oxygen	<u>0.51</u>	<u>0.52</u>
	100.00	100.00

ANALYSIS OF ASH

% Weight Ignited Basis

Silica, SiO ₂	56.79
Alumina, Al ₂ O ₃	26.96
Titania, TiO ₂	1.21
Ferric Oxide, Fe ₂ O ₃	8.48
Lime, CaO	1.46
Magnesia, MgO	0.96
Potassium Oxide, K ₂ O	2.79
Sodium Oxide, Na ₂ O	0.28
Sulfur Trioxide, SO ₃	0.27
Phosphorous Pentoxide, P ₂ O ₅	0.43
Strontium Oxide, SrO	0.10
Barium Oxide, BaO	0.22
Manganese Oxide, Mn ₃ O ₄	0.05
Undetermined	0.00
Alks. as Na ₂ O, Dry Coal Basis	2.07
Base:Acid Ratio	0.16
T250 Temperature	2839

Silica Value	83.90
Type of Ash	BITUMINOUS
Fouling Index	0.04
Slagging Index	0.14
% MAF Fixed Carbon	99.50
% MAF Volatile	0.50
lb SO ₂ /mm Btu	96.17
lb Sulfur/mm Btu	48.09



Certificate No. 7061/1

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

Denver Laboratory





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TENNESSEE VALLEY AUTHORITY
1101 Market Street PSC 1A
Chattanooga TN 37402
RENEE B. MERRELL

SAMPLE No.: 257753
SAMPLE TYPE: PONDED FLY ASH
REMARKS: FLY

Date Received March 5, 2002
Analysis report no. 72-470150

PROXIMATE ANALYSIS

ULTIMATE ANALYSIS

	As Received	Dry Basis
% Moisture	0.20	xxxxxxx
% Ash	93.74	93.93
% Volatile	< 0.01	< 0.01
% Fixed Carbon	6.05	6.06
	100.00	100.00
Btu/lb	731	732
% Sulfur	0.01	0.01
MAF Btu/lb	12059	

	As Received	Dry Basis
% Moisture	0.20	xxxxxxx
% Carbon	4.90	4.91
% Hydrogen	0.08	0.08
% Nitrogen	0.32	0.32
% Sulfur	0.01	0.01
% Ash	93.74	93.93
% Oxygen	0.75	0.75
	100.00	100.00

ANALYSIS OF ASH

% Weight Ignited Basis

Silica, SiO ₂	54.94
Alumina, Al ₂ O ₃	28.87
Titania, TiO ₂	1.33
Ferric Oxide, Fe ₂ O ₃	8.59
Lime, CaO	1.33
Magnesia, MgO	1.00
Potassium Oxide, K ₂ O	2.74
Sodium Oxide, Na ₂ O	0.28
Sulfur Trioxide, SO ₃	0.05
Phosphorous Pentoxide, P ₂ O ₅	0.48
Strontium Oxide, SrO	0.10
Barium Oxide, BaO	0.23
Manganese Oxide, Mn ₃ O ₄	0.06
Undetermined	0.00
Alks. as Na ₂ O, Dry Coal Basis	1.96
Base:Acid Ratio	0.16
T250 Temperature	2822

Silica Value	83.42
Type of Ash	BITUMINOUS
Fouling Index	0.04
Slagging Index	0.00
% MAF Fixed Carbon	99.84
% MAF Volatile	0.16
lb SO ₂ /mm Btu	0.27
lb Sulfur/mm Btu	0.14



Certificate No. 7061/1

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[Signature]
Denver Laboratory

