From: Pfeiffer, Caryl(/O=LGE/OU=LOUISVILLE/CN=RECIPIENTS/CN=E012383)
To: Tapp Sr., Kenny (Electric)
CC:
BCC:
Subject: FW: Ghent Landfill Beneficial Reuse Opportunity
Sent: 12/13/2011 08:44:05 AM -0500 (EST)
Attachments:

From: Straight, Scott
Sent: Tuesday, December 13, 2011 8:32 AM
To: 'John Walters'
Cc: Pfeiffer, Caryl; Voyles, John; charles.schram@lge-ku.com; Joyce, Jeff; Heun, Jeff; Bowling, Ralph
Subject: RE: Ghent Landfill Beneficial Reuse Opportunity

Mr. Walters,

As we have discussed over the phone, this potential opportunity you have presented would not eliminate the need to construct the infrastructure required to process the by-products at Ghent, nor would it eliminate the construction of the landfill infrastructure. Instead, it potentially could have merit in a few years to defer the next phased expansion of the landfill.

The next phase of the landfill is years away; therefore, I'm transferring any future evaluation of this proposal to Mr. Jeff Joyce, Ghent's General Manager.

As the station General Manager, Mr. Joyce will take the lead on any consideration of changes to the future operation of that facility. If needed, Mr. Joyce will request involvement from my department or Caryl Pfeiffer's Corporate Fuels and By-Products department.

Sincerely,

Scott Straight
Director, Project Engineering
LG&E and KU Energy, LLC
(502) 627-2701
scott.straight@lge-ku.com

From: John Walters [mailto:johnwalters@sterlingventures.com]
Sent: Saturday, December 10, 2011 5:06 PM
To: Heun, Jeff
Cc: Straight, Scott; Pfeiffer, Caryl; Voyles, John; charles.schram@lge-ku.com; Joyce, Jeff
Subject: Ghent Landfill Beneficial Reuse Opportunity

Jeff

I understand from Scott Straight that you are evaluating the comparative PVRR cost projections for the beneficial reuse of Ghent's gypsum at Sterling Ventures' underground limestone mine. I am continuing to make minor adjustments to the comparative projections as we learn more information. Attached is the latest PVRR cost comparison.

In PSC Case No. 2009-00197, Charles Schram submitted, as part of his testimony, the PVRR analysis table that the Company would use to evaluate new beneficial reuse opportunities that could minimize disposal cost by delaying or eliminating construction of future phases. I have added three worksheets (KU PVRR Project 30, PVRR SV Option1 and PVRR SV Option2) to the attached excel file. Those worksheets (also attached as pdfs) convert my original PVRR comparison worksheet to the format that Mr. Schram indicated would be used in this situation. I apologize for not providing the beneficial reuse savings projections in this format earlier.

As I have indicated in prior emails, the comparative PVRR projections are based on certain assumptions about the timing of the remaining $160 million construction costs of Phases 2 and 3 of the landfill. I have based my capital cost timing assumptions, and the O&M costs, on the retirement studies analysis in KU's recent Environmental Surcharge case. We would welcome the opportunity to meet with you about refining, correcting and updating the construction timing and cost assumptions in the attached.

I am also attaching, for your review, the Form 7059 for that we filed in July 2010, and a copy of the resulting Beneficial Reuse Special Waste Permit for Ghent's gypsum the we received in November, 2010.

Hopefully, our existing Beneficial Reuse Permit can provide a timely alternative that can delay or eliminate near and long term landfill construction costs and equipment purchases at Ghent, and result in significant savings for KU and its' customers.

Could you possibly confirm receipt of this email, and also let me know when you believe your preliminary analysis will be completed?

I look forward to hearing from you.

John Walters

--

John W. Walters, Jr.

Sterling Ventures, LLC

376 South Broadway

Lexington, KY 40508

Phone (859) 259-9600

Fax (859) 259-9601

johnwalters@sterlingventures.com

From: Pfeiffer, Caryl(/O=LGE/OU=LOUISVILLE/CN=RECIPIENTS/CN=E012383)
To: Tapp Sr., Kenny (Electric)
CC:
BCC:
Subject: FW: Ghent Landfill Beneficial Reuse Opportunity
Sent: 12/12/2011 07:15:42 AM -0500 (EST)
Attachments: Ghent PVRR 12-7-11.xlsx; Ghent Project 30 PVRR Table SV Option2.pdf; Ghent Project 30 PVRR Table SV Option1.pdf; Ghent Project 30 PVRR Table.pdf; Sterling Ventures Permit 11-19-2010.pdf; Form 7056.pdf;

From: John Walters [mailto:johnwalters@sterlingventures.com]
Sent: Saturday, December 10, 2011 5:06 PM
To: Heun, Jeff
Cc: Straight, Scott; Pfeiffer, Caryl; Voyles, John; charles.schram@lge-ku.com; Joyce, Jeff
Subject: Ghent Landfill Beneficial Reuse Opportunity

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John Walters

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John W. Walters, Jr.

Sterling Ventures, LLC

376 South Broadway

Lexington, KY 40508

Phone (859) 259-9600

Fax (859) 259-9601

johnwalters@sterlingventures.com

DEP 7059F (1/06)

ENVIRONMENTAL AND PUBLIC PROTECTION CABINET

DEPARTMENT FOR ENVIRONMENTAL PROTECTION
DIVISION OF WASTE MANAGEMENT
14 REILLY ROAD
FRANKFORT, KY 40601
TELEPHONE NUMBER (502) 564-6716

REGISTERED PERMIT-BY-RULE
For BENEFICIAL REUSE OF SPECIAL WASTE
DEP 7059F (1/06)

GENERAL INSTRUCTIONS

1. APPLICABILITY - This registration form must be completed and submitted to the Cabinet by persons who propose to beneficially re-use special waste.

2. ASSISTANCE – Questions regarding this form may be directed in writing to the Division of Waste Management, Solid Waste Branch at the address listed above, or by calling (502) 564-6716.

3. SUBMISSION – Please type or print legibly in permanent ink. Submit the original and one (1) copy of the completed registration form to the Division of Waste Management at the address noted above. If an item is not applicable to your facility write "N/A" in the space provided.

4. LAWS AND REGULATIONS – Registrants are expected to understand and comply with all laws and regulations applicable to beneficial reuse of special waste.

DEP 7059F (1/06)

REGISTERED PERMIT-BY-RULE
BENEFICIAL REUSE OF SPECIAL WASTE

1. X New Registration - A registration number will be assigned by the Cabinet.
2. ___ This is a proposed modification of an existing registration.

Note: (If you checked item 2, complete one or both of the following two items.)
3. Agency Interest #: _____ 4. Registration #: ___-_____

Registrant Information

(The corporation, LLC, business, person, government agency, etc., that owns or operates the facility.)

5. Registrant Name: Sterling Ventures, LLC d/b/a Sterling Materials

6. Registrant Mailing Address: 376 South Broadway

7. City: Lexington 8. State: KY 9. Zip Code: 40508

10. Contact Person: Samuel A.B. Boone 11. Title: President

12. Phone #: (859) 259-9600 13. Cell #: (859) 621-4121

14. Fax #: (859) 259-9601 15. E-Mail Address: aboone@sterlingventures.com

Special Waste Facility Information

16. Facility Name: Sterling Mine 17. County: Gallatin

18. Facility Location: 100 Sierra Drive 19. E-Mail Address: _____
(For street or physical location only. Do not use P. O. Box #'s, etc.)

20. City: Verona 21. Zip Code: 41092

22. Facility Contact Person: Sam Van 23. Title: Mine Superintendent

24. Phone #: (859) 567-7300 Fax #: (859) 567-7313 Cell #: (859) 621-2142

Preparer Information

(Complete items 27 – 36 If the following information concerning the person preparing this registration is different from the contact persons named above.)

27. Preparers Name: John Walters 28. Company: Sterling Ventures, LLC

29. Mailing Address: 376 S. Broadway 30. E-mail Address: johnwalters@sterlingventures.com

31. City: Lexington 32. State: KY 33. Zip Code: 40508

34. Phone #: (859) 259-9600 35. Fax #: (859) 259-9601 36. Cell #: (859) 621-3990

DEP 7059F (1/06)

37. List the source (special waste generating facility) of the special waste to be beneficially reused. If there are multiple sources and more space is needed, use additional sheets and label as **Attachment 1.**

Special waste generator: KU Ghent Generation Station, Ghent, Carroll County, Kentucky

Special waste generator: _____

Special waste generator: _____

Special waste generator: _____

38. Provide, as **Attachment 2,** a description of the type and anticipated volume of special waste to be beneficially reused.

39. Provide as **Attachment 3,** a copy of the Toxicity Characteristic Leaching Procedure (TCLP) laboratory analysis for each type of special waste to be beneficially reused.

Note: You may omit the TCLP analysis or specific parameters of the analysis based upon your knowledge of the Special Waste, pursuant to 40 CFR 262.11. Should you elect to do this, a certified statement accepting responsibility will be required. Polychlorinated Biphenyls (PCBs) may also be omitted from the parameters listed in 401 KAR 45:100 Section 6(20)(b). Any certified statement for the omission of the TCLP or PCB data should be labeled as **Attachment 4.**

40. Provide, as **Attachment 5,** a description of how the special waste will be managed.

41. Provide, as **Attachment 6,** a description of how management and reuse of the special waste meets the environmental performance standards of 401 KAR 30:031.

42. **Attachment 7** is to be used to maintain a record of the special waste sources and amounts received. This form shall be utilized for quarterly reports submitted to the Cabinet.

DEP 7059F (1/06)

43. **Certification pursuant to 401 KAR 45:030 Section 10(4):**

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for such violations."

Signature of Registrant _____ Date _____

Name of Registrant (Typed or Printed) _____

Title _____

Subscribed and sworn to before me by _____

this the _____ day of _____, 20 _____.

Notary Public Signature _____

My Commission Expires _____

Attachment 2
Type and Volume of Special Waste

Sterling Ventures is proposing to use up to 800,000 tons per year of FGD Gypsum produced from the KU Ghent Power Station in Ghent Kentucky to fill mine voids in mined out sections of Sterling's underground limestone mine located at 100 Sierra Drive, Verona, Gallatin County, Kentucky. Gypsum is calcium sulfate dihydrate, or CaSO4•2H2O, which comes primarily from two sources: (i) Mined gypsum, a common mineral found around the world in sedimentary rock formations, from which it is mined or quarried, and (ii) FGD gypsum, which is produced as a byproduct from coal-fired electric utilities and is a synthetic material essentially identical in chemical structure to mined gypsum. The underground mine has the capacity to use 1,000,000 tons per year of gypsum for as long as the mine is operating at current limestone sales volumes.

FGD Gypsum

Scrubbers are attached to coal-fired power plants to limit emissions of the sulfur which is released when coal is burned. The scrubbers spray liquid lime or limestone slurry into the flue gas path, where it reacts with sulfur in the gas to form calcium sulfite, an intermediate product with little practical value. Calcium sulfite is commonly known as "scrubber sludge."

However, newer FGD scrubbing technologies can add an extra step to the scrubbing process known as "forced oxidation" which oxidizes the calcium sulfite and produces calcium sulfate dihydrate (CaSO4•2H2O), or FGD gypsum. The FGD gypsum is easily dewatered and can be marketable in the wallboard and agricultural industries.

The Ghent power plant has installed forced oxidation scrubbers on all four of its generating units with a projected FGD gypsum production of approximately 800,000 tons per year. The Ghent plant has a contract to provide the FGD Gypsum to the CertainTeed, Inc. wallboard plant located in East Carrolton, Kentucky. KU has projected CertainTeed's usage to be approximately 222,000 ton per year. Excess FGD Gypsum at Ghent is placed on the plant's Gypsum Stacking Pond. The Stacking Pond is currently listed as one of the 49 High Hazard impoundment facilities in the United States listed by the EPA in its *Coal Combustion Residues (CCR) - Surface Impoundments with High Hazard Potential Ratings* report. (See EPA530-F-09-006 June 2009 (updated August 2009)).

Because CertainTeed cannot utilize all of Ghent's FGD Gypsum, the opportunity to beneficially reuse this excess of FGD gypsum for filling Sterling's underground mine voids is an attractive alternative. In addition to providing a benefit to Sterling in filling underground voids to promote improved airflow in the mine, placing the Ghent's excess gypsum at Sterling is important to substantially reducing or eliminating the volume of excess gypsum in the gypsum stacking pond.

Attachment 3
Toxicity Characteristic Leaching Procedure Laboratory Analysis

See attached Exhibit 3-A

Exhibit 3A

Microbac Laboratories, Inc.
KENTUCKY TESTING LABORATORY DIVISION
3323 Gilmore Industrial Blvd. Louisville, KY 40213 502.962.6400 Fax: 502.962.6411
Evansville, IN 812.464.9000 | Lexington, KY 859.276.3506 | Paducah, KY 270.898.1637
Member ACIL

Chemical, Biological, Physical, Molecular, and Toxicological Services

ELECTRONIC CERTIFICATE OF ANALYSIS

1006-00672

L G & E (E ON US)
PAUL PUCKETT
EON-US / ANNUAL CCR EVALUATION

Date Reported 05/19/2010
Date Received 05/11/2010
Dates Sampled 05/04/2010-05/06/2010

Analysis	Out of Spec	Qualif	Result	Unit	Min	Max	Method	Cus Limit	PQL or Std Limit	Date	Time	Tech
Sample: 014 GHENT - UNIT 1 FLY ASH							Date & Time Sampled:			05/06/2010	@ 12:00	
....continued												
Sample: 015 GHENT - UNIT 2 FLY ASH							Date & Time Sampled:			05/06/2010	@ 12:00	
DATE EXTRACTED TCLP			COMPLETED	---			SW846 1311			05/13/10	16:00	RFV
[TCLP Metals]							SW846 6010C					
ARSENIC, TCLP			<0.20	MG/L		5.0	SW846 6010C		0.2	05/18/10	2:11	EHL
BARIUM, TCLP			0.48	MG/L		100.0	SW846 6010C		0.002	05/18/10	2:11	EHL
CADMIUM, TCLP			<0.10	MG/L		1.0	SW846 6010C		0.004	05/19/10	13:39	EHL
CHROMIUM, TCLP			<0.10	MG/L		5.0	SW846 6010C		0.01	05/19/10	13:39	EHL
LEAD, TCLP			<0.10	MG/L		5.0	SW846 6010C		0.02	05/19/10	13:39	EHL
MERCURY, TCLP			<0.10	MG/L		0.2	SW846 6010C		0.004	05/19/10	13:39	EHL
SELENIUM, TCLP			<0.20	MG/L		1.0	SW846 6010C		0.1	05/18/10	2:11	EHL
SILVER, TCLP			<0.10	MG/L		5.0	SW846 6010C		0.01	05/19/10	13:39	EHL
Sample: 016 GHENT - GYPSUM STACK							Date & Time Sampled:			05/06/2010	@ 12:00	
DATE EXTRACTED TCLP			COMPLETED	---			SW846 1311			05/13/10	16:00	RFV
[TCLP Metals]							SW846 6010C					
ARSENIC, TCLP			<0.20	MG/L		5.0	SW846 6010C		0.2	05/18/10	2:16	EHL
BARIUM, TCLP			<0.10	MG/L		100.0	SW846 6010C		0.002	05/18/10	2:16	EHL
CADMIUM, TCLP			<0.10	MG/L		1.0	SW846 6010C		0.004	05/19/10	13:43	EHL
CHROMIUM, TCLP			<0.10	MG/L		5.0	SW846 6010C		0.01	05/19/10	13:43	EHL
LEAD, TCLP			<0.10	MG/L		5.0	SW846 6010C		0.02	05/19/10	13:43	EHL
MERCURY, TCLP			<0.10	MG/L		0.2	SW846 6010C		0.004	05/19/10	13:43	EHL
SELENIUM, TCLP			<0.20	MG/L		1.0	SW846 6010C		0.1	05/18/10	2:16	EHL
SILVER, TCLP			<0.10	MG/L		5.0	SW846 6010C		0.01	05/19/10	13:43	EHL
Sample: 017 GHENT - GYPSUM							Date & Time Sampled:			05/06/2010	@ 12:00	
DATE EXTRACTED TCLP			COMPLETED	---			SW846 1311			05/13/10	16:00	RFV
[TCLP Metals]							SW846 6010C					
ARSENIC, TCLP			<0.20	MG/L		5.0	SW846 6010C		0.2	05/18/10	2:19	EHL
BARIUM, TCLP			<0.10	MG/L		100.0	SW846 6010C		0.002	05/18/10	2:19	EHL
CADMIUM, TCLP			<0.10	MG/L		1.0	SW846 6010C		0.004	05/19/10	13:46	EHL
CHROMIUM, TCLP			<0.10	MG/L		5.0	SW846 6010C		0.01	05/19/10	13:46	EHL
LEAD, TCLP			<0.10	MG/L		5.0	SW846 6010C		0.02	05/19/10	13:46	EHL
MERCURY, TCLP			<0.10	MG/L		0.2	SW846 6010C		0.004	05/19/10	13:46	EHL

Microbac®

Microbac Laboratories, Inc.

KENTUCKY TESTING LABORATORY DIVISION
3333 Gilmore Industrial Blvd. Louisville, KY 40213 502.962.6400 Fax: 502.962.6411
Evansville, IN 812.464.9000 | Lexington, KY 859.276.3506 | Paducah, KY 270.898.3637

Member ACIL

Chemical, Biological, Physical, Molecular, and Toxicological Services

ELECTRONIC CERTIFICATE OF ANALYSIS

1005-00672

LG & E (E ON US)
PAUL PUCKETT
EON-US / ANNUAL CCP EVALUATION

Date Reported 05/19/2010
Date Received 05/11/2010
Dates Sampled 05/04/2010-05/06/2010

Analysis	Out of Spec	Qualif	Result	Unit	Min	Max	Method	Cus Limit	PQL or Std Volt	Date	Time	Tech
Sample: 017 GHENT - GYPSUM								Date & Time Sampled:		05/06/2010	@ 12:00	
.....continued												
SELENIUM, TCLP			<0.10	MG/L		1.0	SW846 6010C		0.1	05/18/10	2:29	PHL
SILVER, TCLP			<0.10	MG/L		5.0	SW846 6010C		0.01	05/18/10	13:45	PHL

THIS REPORT HAS BEEN REVIEWED AND APPROVED FOR RELEASE: _____

LABORATORY DIRECTOR, KENTUCKY DIVISION

As regulatory limits change frequently, Microbac advises the recipient of this report to confirm such limits with the appropriate Federal, state, or local authorities before acting in reliance on the regulatory limits provided.
For any feedback concerning our services, please contact Andrew Clifton, the Laboratory Director at 502.962.6400. You may also contact both James Nokes, President and Robert Morgan, Chief Operating Officer at president@microbac.com.

Attachment 5
Management of Special Waste

Gypsum will be excavated from the Ghent's Gypsum Stacking Pond by excavator and loaded in tarped, tri-axel dump trucks for transportation to Sterling's mine. Sterling Venture's Verona mine produces limestone from underground operations only. It does not mine any limestone from open pits. Sterling mines from three underground levels, located in solid limestone bedrock. From a geological standpoint, the sea level elevation of the roof of the uppermost level is approximately 136 feet above sea level. The roofs of the second and third levels are approximately 28 feet above, and 149 feet below sea level, respectively. From a reference point, the lowest most level of the Ohio River adjacent to the Sterling Mine is approximately 401 feet above sea level. (see Exhibit 6C)

Once at the mine, the gypsum will be dumped directly from the dump trucks, via shaft, to the first level (the "Tyrone" seam) of the underground mine. Once underground, the gypsum will be carried by loader or conveyor to the mined out areas then stacked, pushed and compacted to fill the mine voids.

Attachment 6

Management and Reuse in compliance with 401 KAR 30:031

The following is a summary of the how the management and reuse meets each of the Sections of 401 KAR 30:031.

Section 2. Floodplains.
All gypsum will be placed in Sterling's underground mine. Gypsum will not be placed or stored above ground and therefore will have no impact on, or restrict the flow of, the 100 year floodplain.

Section 3. Endangered Species.
All gypsum will be placed in Sterling's underground mine. Gypsum will not be placed or stored above ground and therefore will have no impact on, or result in the destruction of the habitat of any threatened or endangered species.

Section 4. Surface Waters.
All gypsum will be placed in Sterling's underground mine. Gypsum will not be placed or stored above ground and therefore will have no impact on, or cause a discharge into, any waters of the Commonwealth.

Section 5. Groundwater.
All gypsum will be placed in solid bedrock in an area below the bottom level of the uppermost aquifer. Gypsum will not be placed or stored above ground and therefore will have no impact on, or cause a discharge into, any waters of the Commonwealth.

The uppermost mining level of Sterling's underground mine is located in what is known as the Tyrone seam of limestone. The Tyrone Limestone in north central Kentucky contains at least five potassium bentonites. Bentonite is a soft, low-specific-gravity, expandable clay. It is altered volcanic ash and because of its peculiar property of expanding when wet, bentonite is effective as a water sealer, especially to prevent pond leakage, and is also used in rotary drilling muds to prevent contaminating formations with drilling fluid. Drillers have labeled the two most prominent Tyrone bentonite beds the Mud Cave and Pencil Cave. The bentonite acts as an acqutiard or confining layer that will prevent any contact of the gypsum with groundwater.

Attached as Exhibit 6-A is an excerpt from the U.S. Geological Survey - Hydrologic Atlas 730-K, Orville B. Lloyd, Jr., and William L. Lyke, 1995, describing the impact of the bentonite as a barrier to groundwater contact.

The roof of the uppermost mining level is over 200 feet below the bottom of any recorded well in the area. Regional wells do not extend below the bentonite levels in the Tyrone limestone. Attached as Exhibit 6-B is a listing of all recorded water wells in the area, their depth and distance between the bottom of the well and the roof of the Tyrone mining level.

Attached as Exhibit 6-C is a cross section of the Sterling's underground mine showing the Tyrone level mine in relation to the Mud Cave and Pencil Cave bentonite seams.

Section 6. Application to Land Use.
All gypsum will be placed underground. Gypsum will not be placed or stored above ground and therefore will have no impact on land use.

Section 7. Polychlorinated Biphenals.
FGD Gypsum does not contain PCBs.

Section 8. Disease.
All gypsum will be placed underground and therefore will be automatically covered. Gypsum is an inert naturally occurring mineral. Underground placement will eliminate any human health or environmental issues. No sewage sludge or septic tank materials are pumped or stored underground at Sterling's underground mine.

Section 9. Air.
Underground storage will not involve burning of gypsum, which is not a flammable material. Underground storage approximately 400 feet below the surface will prohibit the airborne release of gypsum.

Section 10. Safety.
Neither limestone mining nor gypsum produces any explosive gases or a fire hazard. Sterling's underground mine is gated, which prohibits any type of uncontrolled public access.

Section 11. Public Nuisance.
Underground storage will eliminate any public nuisance due to blowing litter, debris or other waste.

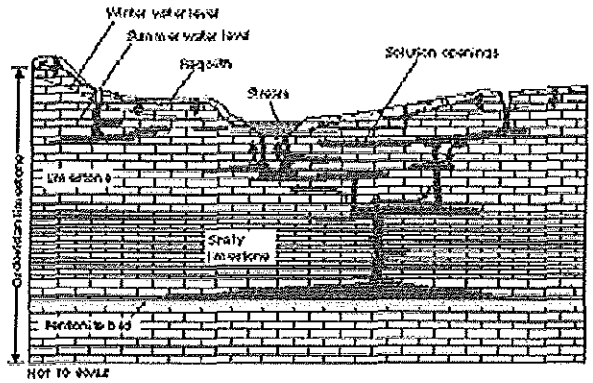
Section 12. Wetlands.
All gypsum will be placed underground. Gypsum will not be placed or stored above ground and therefore will have no impact on any wetlands

Section 13. Karst.
There are no sinkholes on or near the approximately 1,000 acres owned by Sterling. No surface water enters or exits the mine through any karst terrain or feature.

Section 14. Compliance.
Sterling will comply with all applicable requirements of KRS Chapter 224 and administrative regulation promulgated thereto.

Exhibit 6A

Confining units, such as beds of shaly limestone and bentonite, affect the depth to which freshwater circulates (fig. 97). Thin bentonite zones, which consist of clay particles that expand or swell when they become wet, form layers of low permeability that effectively impede the vertical movement of ground water. For example, in areas where the bentonite layers are continuous, the downward movement of ground water is restricted. This restriction isolates the ground water below the bentonite from the zone of dynamic circulation above the bentonite. U.S. Geological Survey - Hydrologic Atlas 730-K, Orville B. Lloyd, Jr., and William L. Lyke, 1995



Modified from Zurawski, Ann, 1978, Summary appraisals of the Nation's ground-water resources—Tennessee region: U.S. Geological Survey Professional Paper 813-L, 35 p.

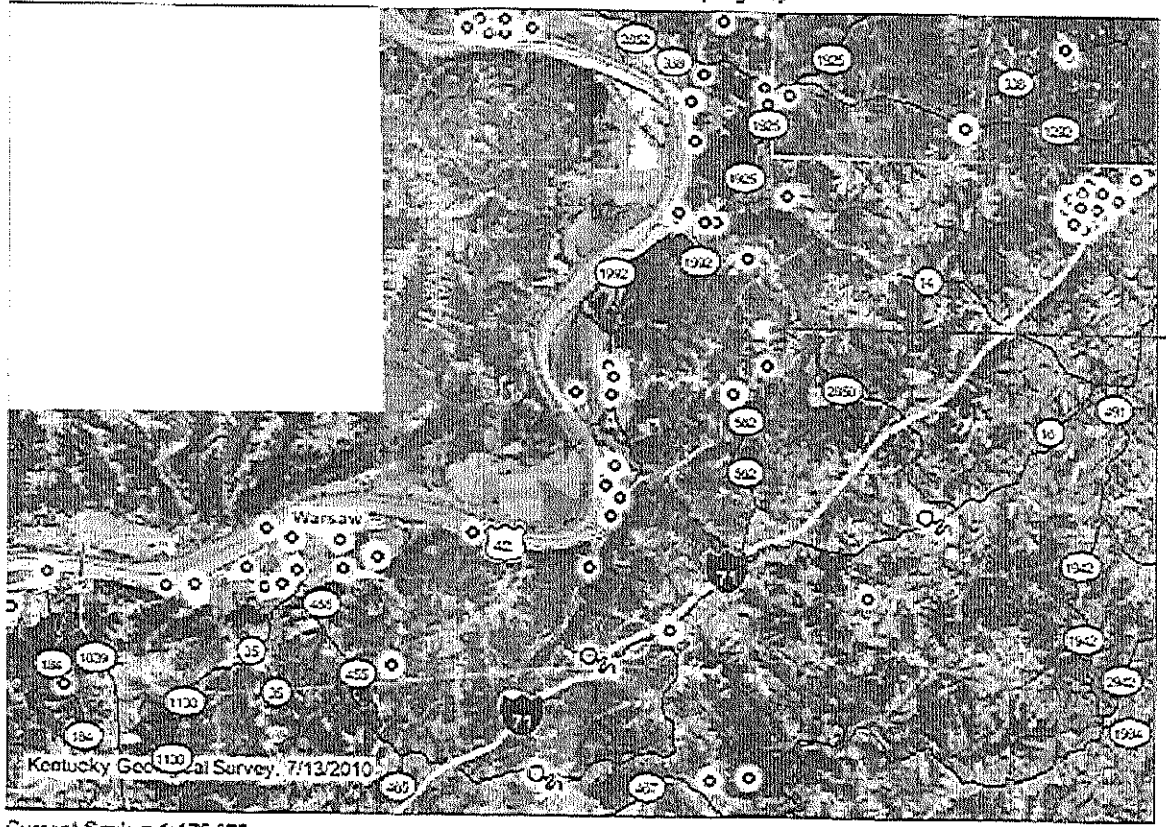
Figure 97. The limestone and dolomite aquifers contain small quantities of insoluble material and, therefore, produce only a thin layer of residuum when weathered. Recharge water percolates through the thin layer of surface material, called regolith, and subsequently moves through vertical fractures and horizontal bedding planes in the rocks. The slightly acidic water dissolves some of the limestone and dolomite as it moves to streams and other areas of discharge, such as springs and wells. The vertical movement of the recharge water and, therefore, the depth of development of solution openings, are restricted by zones of low permeability.

Kentucky Groundwater Data Repository
Kentucky Geological Survey
Water Well and Spring Location Map

Note: please disable popup blocking software for full functionality.

KGS Home > Maps, Pubs, & Data > Groundwater Info > Water Well and Spring Map

Search Criteria:
no search criteria



Sterling Mine

Current Scale = 1:175,972
Note: all wells and springs are displayed at scales below 1:100,000

Change Map Scale: choose a map scale

Change Basemap (background): color imagery (lfsa)

Change Map Size: half pg (6.8 x 4.7 in) | full pg (6.8 x 9.4 in)
TIP: to print map to scale, be sure to "File --> Print Preview..." and print at 100% scaling.

Overview Map:

Map Tools:

zoom in	zoom out	zoom full
zoom last	pan	get coords

Move Map:

Other Tools:

zoom to a location

KY-MAPS

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EXHIBIT 6B

AKGWA NUMBER	lat27	lon27	Quadrangle	County	Construction Date	Primary Use	Surface Elevation	Total Depth	Bottom Elevation	Delta to Mine Roof	Owner	Owner Business	Regulatory Program
210	38.77528	-84.8131	Patriot	Gallatin	3/12/1987	DOMESTIC - SINGLE HOUSEHOLD	480	96	384	248	Wessells Constru		
950	38.81611	-84.8061	Patriot	Gallatin	6/22/1987	DOMESTIC - SINGLE HOUSEHOLD	510	99	411	275	Donlin		
2070	38.7525	-84.8722	Patriot	Gallatin	1/1/1900	DOMESTIC - SINGLE HOUSEHOLD	570				Hayton		
2070	38.7525	-84.8722	Patriot	Gallatin	1/1/1900	DOMESTIC - SINGLE HOUSEHOLD	570				Hayton		
2070	38.7525	-84.8722	Patriot	Gallatin	2/28/1986	DOMESTIC - SINGLE HOUSEHOLD	570	90	480	344	Hayton		
2070	38.7525	-84.8722	Patriot	Gallatin	2/28/1986	DOMESTIC - SINGLE HOUSEHOLD	570	90	480	344	Hayton		
2071	38.7975	-84.8078	Patriot	Gallatin	4/7/1986	DOMESTIC - SINGLE HOUSEHOLD	470	78	392	256	Wilker / McIntos		
2072	38.79167	-84.8039	Patriot	Gallatin	4/22/1986	DOMESTIC - SINGLE HOUSEHOLD	460	57	403	267	Perry		
3030	38.82306	-84.7594	Patriot	Gallatin	8/13/1985	DOMESTIC - SINGLE HOUSEHOLD	600	100	500	364	Whalen		
3885	38.82278	-84.8069	Patriot	Gallatin	7/30/1987	DOMESTIC - SINGLE HOUSEHOLD	524	142	382	246	Sproul		
6426	38.79722	-84.8072	Patriot	Gallatin	3/28/1988	DOMESTIC - SINGLE HOUSEHOLD	475	50	425	289	Hudepohl		
6427	38.775	-84.9003	Florence	Gallatin	8/31/1988	INDUSTRIAL - GENERAL	485	92	393	257		Irving Materials Inc	
6429	38.7875	-84.8064	Patriot	Gallatin	5/16/1989	DOMESTIC - SINGLE HOUSEHOLD	475	65	410	274	Heil		
7861	38.87556	-84.7808	Rising Sun	Boone	10/8/1990	DOMESTIC - SINGLE HOUSEHOLD	495	70	425	289	Ralston		
8554	38.79639	-84.8078	Patriot	Gallatin	10/29/1987	DOMESTIC - SINGLE HOUSEHOLD	470	93	377	241	Schwab		
10409	38.75417	-84.9117	Florence	Gallatin	1/22/1993	DOMESTIC - SINGLE HOUSEHOLD	550	83	467	331	Fender		
14147	38.88472	-84.7817	Rising Sun	Boone	12/13/1988	DOMESTIC - SINGLE HOUSEHOLD	530	86	444	308	Wood		
14148	38.88472	-84.7817	Rising Sun	Boone	12/14/1988	DOMESTIC - SINGLE HOUSEHOLD	430	93	337	201	Wood		
20278	38.78389	-84.8475	Patriot	Gallatin	8/18/1986	DOMESTIC - SINGLE HOUSEHOLD	470	80	390	254	Boschert		
20583	38.88778	-84.7597	Rising Sun	Boone	1/1/1900		550				Waljih		
21565	38.76806	-84.7294	Verona	Grant	10/3/1986	DOMESTIC - SINGLE HOUSEHOLD	710	80	630	494	Ellis		
21577	38.88389	-84.7586	Rising Sun	Boone	6/5/1994	DOMESTIC - SINGLE HOUSEHOLD	520	80	440	304	Wilbur		
27010	38.8575	-84.7864	Patriot	Boone	6/8/1992	DOMESTIC - SINGLE HOUSEHOLD	477	56	421	285	Fred		
29603	38.77078	-84.9396	Florence	Gallatin	1/1/1900	PUBLIC - TRANSIENT, NON-COMMUNITY	460				Loewendick	Rivers Edge Campground	
34428	38.87778	-84.6744	Union	Boone	7/20/1993		810	63	747	611	Vaske		
34436	38.84806	-84.765	Patriot	Boone	1/20/1987	DOMESTIC - SINGLE HOUSEHOLD	495	64	431	295	Gilliland		
34438	38.90361	-84.7714	Rising Sun	Boone	12/10/1986	DOMESTIC - SINGLE HOUSEHOLD	600	100	500	364	Kurkel		
34474	38.89556	-84.6681	Union	Boone	4/23/1993		810	83	727	591	Allen		
34475	38.89694	-84.6694	Union	Boone	12/4/1992	DOMESTIC - SINGLE HOUSEHOLD	820	103	717	581	McDaniel		
37305	38.78611	-84.8903	Florence	Gallatin	10/1/1994	HEAT PUMP - OPEN LOOP	495	94	401	265		Gallatin County Schools	
37311	38.76583	-84.9856	Florence	Gallatin	1/19/1995	INDUSTRIAL - GENERAL	470	91	379	243		Steel Technologies Inc	
37376	38.78222	-84.9017	Florence	Gallatin	1/1/1930	PUBLIC - COMMUNITY	491	136	355	219		Warsaw Water Works	Drinking Water
37377	38.78262	-84.9017	Florence	Gallatin	1/1/1930	PUBLIC - COMMUNITY	491	96	395	259		Warsaw Water Works	Drinking Water
37378	38.77417	-84.8856	Florence	Gallatin	1/1/1967	AGRICULTURE - LIVESTOCK WATERING	505	78	427	291	Smith		
37400	38.77861	-84.8778	Florence	Gallatin	4/27/1995		500				Oldendick	Sugar Bay Golf Inc	
39222	38.77889	-84.8764	Florence	Gallatin	1/1/1965		503				Oldendick	Sugar Bay Golf Inc	
48660	38.77528	-84.8867	Florence	Gallatin	1/1/1900	DOMESTIC - SINGLE HOUSEHOLD	510				Beall		
49372	38.78583	-84.8931	Florence	Gallatin	11/1/1999	HEAT PUMP - OPEN LOOP	495					Gallatin County Schools	
49377	38.77063	-84.9102	Florence	Gallatin	2/28/2000	PUBLIC - COMMUNITY	500					Gallatin County Water District	Drinking Water
51920	38.89969	-84.7986	Rising Sun	Boone	1/1/1974	PUBLIC - TRANSIENT, NON-COMMUNITY	470	9	461	325		Camp Turn About	
55811	38.85639	-84.7742	Patriot	Boone	4/19/2002	DOMESTIC - SINGLE HOUSEHOLD	490	70	420	284		Big Bone Marina	
58332	38.85639	-84.7775	Patriot	Boone	5/1/2002	DOMESTIC - SINGLE HOUSEHOLD	460	63	397	261		Big Bone Marina	
58338	38.89111	-84.7776	Rising Sun	Boone	1/23/2002	DOMESTIC - SINGLE HOUSEHOLD	605	80	525	389	Parker		
65141	38.82028	-84.8053	Patriot	Gallatin	1/1/1900	INDUSTRIAL - GENERAL	523					Nugent Sand Co - Warsaw Plant	
40004237	38.72534	-84.7774	Glencoe	Grant		DOMESTIC - SINGLE HOUSEHOLD							
40004241	38.78173	-84.8874	Florence	Gallatin		UNKNOWN	475						
40004243	38.79923	-84.8049	Patriot IN	Gallatin		DOMESTIC - SINGLE HOUSEHOLD		140					
40004245	38.81673	-84.8169	Patriot IN	Gallatin		DOMESTIC - SINGLE HOUSEHOLD		101					
40005375	38.77145	-84.9049	Florence	Gallatin		UNKNOWN	515						
40005376	38.77423	-84.9747	Florence	Gallatin		UNKNOWN	455						
40005378	38.78257	-84.9019	Florence	Gallatin		PUBLIC	490	140	350	214			
40005886	38.72618	-84.7655	Glencoe	Grant		UNKNOWN							

AKGWA NUMBER	lat27	lon27	Quadrangle	County	Construction Date	Primary Use	Surface Elevation	Total Depth	Bottom Elevation	Delta to Mine Roof	Owner	Owner Business	Regulatory Program
40005892	38.76951	-84.9305	Florence	Gallatin		DOMESTIC - SINGLE HOUSEHOLD		55					
40005893	38.76951	-84.9305	Florence	Gallatin		UNKNOWN	460						
40005894	38.77395	-84.9747	Florence	Gallatin		DOMESTIC - SINGLE HOUSEHOLD		58					
40005895	38.85867	-84.7858	Patriot IN	Boone		DOMESTIC - SINGLE HOUSEHOLD	490	29	461	325			
40006041	38.78173	-84.8874	Florence	Gallatin		DOMESTIC - SINGLE HOUSEHOLD		40					
40006325	38.77812	-84.8761	Florence	Gallatin		UNKNOWN	510		510	374			
40006326	38.78173	-84.8874	Florence	Gallatin		UNKNOWN	475		475	339			
40006327	38.79479	-84.8077	Patriot IN	Gallatin		DOMESTIC - SINGLE HOUSEHOLD		60					
40006328	38.79923	-84.8049	Patriot	Gallatin		UNKNOWN	490						
40006757	38.72534	-84.7774	Glencoe	Grant		UNKNOWN							
40006762	38.77145	-84.9049	Florence	Gallatin		DOMESTIC - SINGLE HOUSEHOLD		146					
40006763	38.77423	-84.9747	Florence	Gallatin		DOMESTIC - SINGLE HOUSEHOLD		87					
40006764	38.86256	-84.7527	Patriot IN	Boone		PUBLIC							
40007580	38.72618	-84.7655	Glencoe	Grant		DOMESTIC - SINGLE HOUSEHOLD							
40007585	38.74757	-84.9699	Sanders	Gallatin		DOMESTIC - SINGLE HOUSEHOLD							
40007586	38.77395	-84.9747	Florence	Gallatin		UNKNOWN	453						
40007588	38.77812	-84.8761	Florence	Gallatin		DOMESTIC - SINGLE HOUSEHOLD		80					
80003234	38.8625	-84.6614	Verona	Boone	7/22/1993	ITORING WELL - WATER LEVEL MONITORING	800	18	782	646		Bavarian Trucking Co Inc	Solid Waste
80003235	38.86139	-84.6572	Verona	Boone	7/14/1993	ITORING WELL - WATER LEVEL MONITORING	800	20.7	779.3	643.3		Bavarian Trucking Co Inc	Solid Waste
80003236	38.86083	-84.6592	Verona	Boone	7/10/1993	ITORING WELL - WATER LEVEL MONITORING	780	17.5	762.5	626.5		Bavarian Trucking Co Inc	Solid Waste
80003239	38.85917	-84.6619	Verona	Boone	7/22/1993	MONITORING WELL - AMBIENT MONITORING	740	18.2	721.8	585.8		Bavarian Trucking Co Inc	Solid Waste
80003240	38.85944	-84.6628	Verona	Boone	7/10/1993	MONITORING WELL - AMBIENT MONITORING	720	27	693	557		Bavarian Trucking Co Inc	Solid Waste
80003241	38.85972	-84.6639	Verona	Boone	7/10/1993	MONITORING WELL - AMBIENT MONITORING	720	22.9	697.1	561.1		Bavarian Trucking Co Inc	Solid Waste
80003242	38.85917	-84.665	Verona	Boone	7/21/1993	MONITORING WELL - AMBIENT MONITORING	720	18.4	701.6	565.6		Bavarian Trucking Co Inc	Solid Waste
80003243	38.85972	-84.6667	Verona	Boone	7/21/1993	MONITORING WELL - AMBIENT MONITORING	700	18.1	681.9	545.9		Bavarian Trucking Co Inc	Solid Waste
80003244	38.85944	-84.6678	Verona	Boone	7/20/1993	MONITORING WELL - AMBIENT MONITORING	720	18.9	701.1	565.1		Bavarian Trucking Co Inc	Solid Waste
80003245	38.85556	-84.6678	Verona	Boone	12/30/2000	MONITORING WELL - AMBIENT MONITORING	800	18.1	781.9	645.9		Bavarian Trucking Co Inc	Solid Waste
80003245	38.85556	-84.6678	Verona	Boone	12/30/2000	MONITORING WELL - AMBIENT MONITORING	800	18.1	781.9	645.9		Bavarian Trucking Co Inc	Solid Waste
80003245	38.85556	-84.6678	Verona	Boone	7/14/1993	MONITORING WELL - AMBIENT MONITORING	800	18.1	781.9	645.9		Bavarian Trucking Co Inc	Solid Waste
80003245	38.85556	-84.6678	Verona	Boone	7/14/1993	MONITORING WELL - AMBIENT MONITORING	800	18.1	781.9	645.9		Bavarian Trucking Co Inc	Solid Waste
80003245	38.85556	-84.6678	Verona	Boone	12/30/2000	MONITORING WELL - AMBIENT MONITORING	800	18.1	781.9	645.9		Bavarian Trucking Co Inc	Solid Waste
80003245	38.85556	-84.6678	Verona	Boone	12/30/2000	MONITORING WELL - AMBIENT MONITORING	800	18.1	781.9	645.9		Bavarian Trucking Co Inc	Solid Waste
80003245	38.85556	-84.6678	Verona	Boone	7/14/1993	MONITORING WELL - AMBIENT MONITORING	800	18.1	781.9	645.9		Bavarian Trucking Co Inc	Solid Waste
80003245	38.85556	-84.6678	Verona	Boone	7/14/1993	MONITORING WELL - AMBIENT MONITORING	800	18.1	781.9	645.9		Bavarian Trucking Co Inc	Solid Waste
80003246	38.86	-84.6642	Verona	Boone	7/27/1993	MONITORING WELL - AMBIENT MONITORING	720	18.3	701.7	565.7		Bavarian Trucking Co Inc	Solid Waste
80011401	38.86139	-84.6542	Verona	Boone	1/1/1900	MONITORING WELL - AMBIENT MONITORING	847.49					Bavarian Trucking Co Inc	Solid Waste
80011402	38.86167	-84.6539	Verona	Boone	1/1/1900	MONITORING WELL - AMBIENT MONITORING	847.92					Bavarian Trucking Co Inc	Solid Waste
80011403	38.85778	-84.6592	Verona	Boone	1/1/1900	MONITORING WELL - AMBIENT MONITORING	833.59					Bavarian Trucking Co Inc	Solid Waste
80011404	38.85806	-84.6589	Verona	Boone	1/1/1900	MONITORING WELL - AMBIENT MONITORING	833.65					Bavarian Trucking Co Inc	Solid Waste
80011405	38.85583	-84.6619	Verona	Boone	1/1/1900	MONITORING WELL - AMBIENT MONITORING	834.72					Bavarian Trucking Co Inc	Solid Waste
80011406	38.855	-84.6639	Verona	Boone	1/1/1900	MONITORING WELL - AMBIENT MONITORING	816.7					Bavarian Trucking Co Inc	Solid Waste
80011407	38.85611	-84.6672	Verona	Boone	1/1/1900	MONITORING WELL - AMBIENT MONITORING	800.5					Bavarian Trucking Co Inc	Solid Waste
80011408	38.85861	-84.67	Verona	Boone	1/1/1900	MONITORING WELL - AMBIENT MONITORING	766.27					Bavarian Trucking Co Inc	Solid Waste
80011409	38.86	-84.6692	Verona	Boone	1/1/1900	MONITORING WELL - AMBIENT MONITORING	767.85					Bavarian Trucking Co Inc	Solid Waste
80011410	38.86222	-84.6689	Verona	Boone	1/1/1900	MONITORING WELL - AMBIENT MONITORING	641.24					Bavarian Trucking Co Inc	Solid Waste
80011411	38.86222	-84.6669	Verona	Boone	1/1/1900	MONITORING WELL - AMBIENT MONITORING	643.85					Bavarian Trucking Co Inc	Solid Waste
80011412	38.86222	-84.6681	Verona	Boone	1/1/1900	MONITORING WELL - AMBIENT MONITORING	604.9					Bavarian Trucking Co Inc	Solid Waste
80011413	38.8625	-84.6622	Verona	Boone	1/1/1900	MONITORING WELL - AMBIENT MONITORING	828.1					Bavarian Trucking Co Inc	Solid Waste
80011414	38.8625	-84.6622	Verona	Boone	1/1/1900	MONITORING WELL - AMBIENT MONITORING	828.01					Bavarian Trucking Co Inc	Solid Waste
80011415	38.86417	-84.6594	Verona	Boone	1/1/1900	MONITORING WELL - AMBIENT MONITORING	780.48					Bavarian Trucking Co Inc	Solid Waste
80011416	38.86417	-84.6589	Verona	Boone	1/1/1900	MONITORING WELL - AMBIENT MONITORING	780.26					Bavarian Trucking Co Inc	Solid Waste
80011417	38.86556	-84.6625	Verona	Boone	1/1/1900	MONITORING WELL - AMBIENT MONITORING	784.79					Bavarian Trucking Co Inc	Solid Waste

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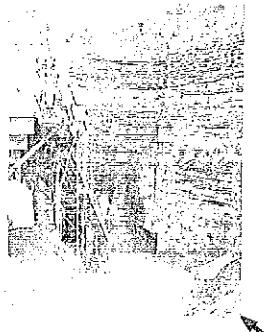
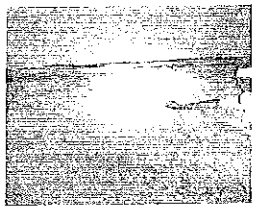
80011418	38.86361	-84.6642	Verona	Boone	1/1/1900	MONITORING WELL - AMBIENT MONITORING	762.46					Bavarian Trucking Co Inc	Solid Waste
80011419	38.86361	-84.6583	Verona	Boone	1/1/1900	MONITORING WELL - AMBIENT MONITORING	784.17					Bavarian Trucking Co Inc	Solid Waste
80012127	38.90417	-84.8358	Rising Sun	Boone	11/10/1980	MONITORING WELL - AMBIENT MONITORING	530	86	444	308		Cincinnati Gas & Electric	Solid Waste
80012127	38.90417	-84.8358	Rising Sun	Boone	11/10/1980	MONITORING WELL - AMBIENT MONITORING	530	86	444	308		Duke Energy Kentucky Inc	Solid Waste
80012133	38.90083	-84.8483	Rising Sun	Boone	11/26/1980	MONITORING WELL - AMBIENT MONITORING	475	57	418	282		Cincinnati Gas & Electric	Solid Waste
80012133	38.90083	-84.8483	Rising Sun	Boone	11/26/1980	MONITORING WELL - AMBIENT MONITORING	475	57	418	282		Duke Energy Kentucky Inc	Solid Waste
80012134	38.90083	-84.8411	Rising Sun	Boone	11/13/1980	MONITORING WELL - AMBIENT MONITORING	475	108	367	231		Cincinnati Gas & Electric	Solid Waste
80012134	38.90083	-84.8411	Rising Sun	Boone	11/13/1980	MONITORING WELL - AMBIENT MONITORING	475	108	367	231		Duke Energy Kentucky Inc	Solid Waste
80012135	38.90111	-84.8361	Rising Sun	Boone	3/28/1991	MONITORING WELL - AMBIENT MONITORING	475	33	442	306		Cincinnati Gas & Electric	Solid Waste
80012135	38.90111	-84.8361	Rising Sun	Boone	3/28/1991	MONITORING WELL - AMBIENT MONITORING	475	33	442	306		Duke Energy Kentucky Inc	Solid Waste
80012488	38.81611	-84.7694	Patriot	Gallatin	4/20/1994	MONITORING WELL - AMBIENT MONITORING	680	18	662	526		Old Starlite Tavern	UST
80012489	38.81611	-84.7694	Patriot	Gallatin	4/20/1994	MONITORING WELL - AMBIENT MONITORING	680	15	665	529		Old Starlite Tavern	UST
80012490	38.81611	-84.7694	Patriot	Gallatin	4/20/1994	MONITORING WELL - AMBIENT MONITORING	680	8.5	671.5	535.5		Old Starlite Tavern	UST
80026034	38.85972	-84.6603	Verona	Boone	5/8/1995	MONITORING WELL - AMBIENT MONITORING	759.34	16	743.34	607.34		Bavarian Trucking Co Inc	Solid Waste
80026035	38.86	-84.665	Verona	Boone	5/10/1995	MONITORING WELL - AMBIENT MONITORING	723.22	16.3	706.92	570.92		Bavarian Trucking Co Inc	Solid Waste
80026544	38.90278	-84.8417	Rising Sun	Boone	11/1/1993	MONITORING WELL - AMBIENT MONITORING	540	80	460	324		Cincinnati Gas & Electric	Solid Waste
80026544	38.90278	-84.8417	Rising Sun	Boone	11/1/1993	MONITORING WELL - AMBIENT MONITORING	540	80	460	324		Duke Energy Kentucky Inc	Solid Waste
80026545	38.90056	-84.8419	Rising Sun	Boone	10/13/1995	MONITORING WELL - AMBIENT MONITORING	475	41	434	298		Cincinnati Gas & Electric	Solid Waste
80026545	38.90056	-84.8419	Rising Sun	Boone	10/13/1995	MONITORING WELL - AMBIENT MONITORING	475	41	434	298		Duke Energy Kentucky Inc	Solid Waste
80026547	38.90417	-84.8444	Rising Sun	Boone	10/17/1995	MONITORING WELL - AMBIENT MONITORING	520	80.5	439.5	303.5		Cincinnati Gas & Electric	Solid Waste
80026547	38.90417	-84.8444	Rising Sun	Boone	10/17/1995	MONITORING WELL - AMBIENT MONITORING	520	80.5	439.5	303.5		Duke Energy Kentucky Inc	Solid Waste
80026549	38.90194	-84.8292	Rising Sun	Boone	10/18/1995	MONITORING WELL - AMBIENT MONITORING	470	30.5	439.5	303.5		Cincinnati Gas & Electric	Solid Waste
80026549	38.90194	-84.8292	Rising Sun	Boone	10/18/1995	MONITORING WELL - AMBIENT MONITORING	470	30.5	439.5	303.5		Duke Energy Kentucky Inc	Solid Waste
80029573	38.90121	-84.8476	Rising Sun	Boone	11/30/2005	MONITORING WELL - AMBIENT MONITORING		120				Cincinnati Gas & Electric	Solid Waste
80029573	38.90121	-84.8476	Rising Sun	Boone	11/30/2005	MONITORING WELL - AMBIENT MONITORING		120				Duke Energy Kentucky Inc	Solid Waste
80029577	38.902	-84.8484	Rising Sun	Boone	12/2/2005	MONITORING WELL - AMBIENT MONITORING		120				Cincinnati Gas & Electric	Solid Waste
80029577	38.902	-84.8484	Rising Sun	Boone	12/2/2005	MONITORING WELL - AMBIENT MONITORING		120				Duke Energy Kentucky Inc	Solid Waste
80029864	38.74278	-84.8358	Glencoe	Gallatin	5/29/1996	MONITORING WELL - AMBIENT MONITORING	680	7.5	672.5	536.5		Glencoe Carry-out	UST
80029865	38.74278	-84.8358	Glencoe	Gallatin	5/29/1996	MONITORING WELL - AMBIENT MONITORING	680	12	668	532		Glencoe Carry-out	UST
80029872	38.74278	-84.8358	Glencoe	Gallatin	6/7/1996	MONITORING WELL - AMBIENT MONITORING	680	15	665	529		Glencoe Carry-out	UST
80029873	38.74278	-84.8358	Glencoe	Gallatin	6/7/1996	MONITORING WELL - AMBIENT MONITORING	680	13	667	531		Glencoe Carry-out	UST
80029874	38.74278	-84.8358	Glencoe	Gallatin	6/7/1996	MONITORING WELL - AMBIENT MONITORING	680	23	657	521		Glencoe Carry-out	UST
80029875	38.74278	-84.8358	Glencoe	Gallatin	6/7/1996	MONITORING WELL - AMBIENT MONITORING	680	30	650	514		Glencoe Carry-out	UST
80030354	38.74278	-84.8358	Glencoe	Gallatin	6/19/1996	MONITORING WELL - AMBIENT MONITORING	680	30	650	514		Glencoe Carry-out	UST
80030355	38.74278	-84.8358	Glencoe	Gallatin	6/19/1996	MONITORING WELL - AMBIENT MONITORING	680	18	662	526		Glencoe Carry-out	UST
80030356	38.74278	-84.8358	Glencoe	Gallatin	6/20/1996	MONITORING WELL - AMBIENT MONITORING	680	43	637	501		Glencoe Carry-out	UST
80030955	38.74222	-84.8347	Glencoe	Gallatin	9/4/1996	MONITORING WELL - AMBIENT MONITORING	690	25	665	529		Glencoe Carry-out	UST
80030956	38.74222	-84.8347	Glencoe	Gallatin	9/4/1996	MONITORING WELL - AMBIENT MONITORING	690	25	665	529		Glencoe Carry-out	UST
80032432	38.86667	-84.6483	Verona	Boone	7/12/1999	MONITORING WELL - AMBIENT MONITORING	840	23.7	816.3	680.3		Bavarian Trucking Co Inc	Solid Waste
80032433	38.86667	-84.6483	Verona	Boone	7/12/1999	MONITORING WELL - AMBIENT MONITORING	831	30.5	800.5	664.5		Bavarian Trucking Co Inc	Solid Waste
80035870	38.74194	-84.8347	Glencoe	Gallatin	11/9/1998	MONITORING WELL - AMBIENT MONITORING	700	30.5	669.5	533.5		Glencoe Carry-out	UST
80035879	38.74222	-84.8347	Glencoe	Gallatin	11/9/1998	MONITORING WELL - AMBIENT MONITORING	690	6	684	548		Glencoe Carry-out	UST
80035880	38.74222	-84.8347	Glencoe	Gallatin	11/9/1998	MONITORING WELL - AMBIENT MONITORING	690	7	683	547		Glencoe Carry-out	UST
80037728	38.88611	-84.7522	Rising Sun	Boone	7/16/2004	MONITORING WELL - AMBIENT MONITORING	460					Kentucky State Parks	
80038750	38.74278	-84.8358	Glencoe	Gallatin	1/12/2000	MONITORING WELL - AMBIENT MONITORING	680	20.2	659.8	523.8		Glencoe Carry-out	UST
80039695	38.77111	-84.9311	Florence	Gallatin	5/24/2000	MONITORING WELL - AMBIENT MONITORING	460	15.5	444.5	308.5		Dans Marina	UST
80039696	38.77111	-84.9311	Florence	Gallatin	5/24/2000	MONITORING WELL - AMBIENT MONITORING	460	15.5	444.5	308.5		Dans Marina	UST
80039697	38.77111	-84.9311	Florence	Gallatin	5/24/2000	MONITORING WELL - AMBIENT MONITORING	460	15.5	444.5	308.5		Dans Marina	UST
80040053	38.77556	-84.9156	Florence	Gallatin	9/29/2000	MONITORING WELL - AMBIENT MONITORING	490	139	351	215		Warsaw Water Works	
80040054	38.78444	-84.9092	Florence	Gallatin	9/29/2000	MONITORING WELL - AMBIENT MONITORING	480	117	363	227		Warsaw Water Works	
80043988	38.74278	-84.8358	Glencoe	Carroll	10/29/2001	MONITORING WELL - AMBIENT MONITORING	680	25	655	519		Glencoe Carry-out	UST
80044011	38.87861	-84.6994	Union	Boone	12/4/2001	MONITORING WELL - AMBIENT MONITORING	740	6.5	733.5	597.5		Matracia & Matracia Partnershi	UST

AKGWA NUMBER	lat27	lon27	Quadrangle	County	Construction Date	Primary Use	Surface Elevation	Total Depth	Bottom Elevation	Delta to Mine Roof	Owner	Owner Business	Regulatory Program
80044012	38.87861	-84.6994	Union	Boone	12/4/2001	MONITORING WELL - AMBIENT MONITORING	740	10.2	729.8	593.8		Matracia & Matracia Partnershi	UST
80044013	38.87861	-84.6994	Union	Boone	12/4/2001	MONITORING WELL - AMBIENT MONITORING	740	9.3	730.7	594.7		Matracia & Matracia Partnershi	UST
80044014	38.87861	-84.6994	Union	Boone	12/4/2001	MONITORING WELL - AMBIENT MONITORING	740	9	731	595		Matracia & Matracia Partnershi	UST
80049181	38.76056	-84.7889	Patriot	Gallatin	5/4/2004	MONITORING WELL - AMBIENT MONITORING	850					Napoleon Grocery	UST
80049182	38.76056	-84.7889	Patriot	Gallatin	5/3/2004	MONITORING WELL - AMBIENT MONITORING	850					Napoleon Grocery	UST
80049185	38.76056	-84.7889	Patriot	Gallatin	5/3/2004	MONITORING WELL - AMBIENT MONITORING	850					Napoleon Grocery	UST
80049186	38.76056	-84.7889	Patriot	Gallatin	5/4/2004	MONITORING WELL - AMBIENT MONITORING	850					Napoleon Grocery	UST
80049425	38.87861	-84.6994	Union	Boone	1/5/2004	MONITORING WELL - AMBIENT MONITORING	740	6	734	598		Matracia & Matracia Partnershi	UST
80049426	38.87861	-84.6994	Union	Boone	1/5/2004	MONITORING WELL - AMBIENT MONITORING	740	8	732	596		Matracia & Matracia Partnershi	UST
80049427	38.87861	-84.6994	Union	Boone	1/5/2004	MONITORING WELL - AMBIENT MONITORING	740	8.5	731.5	595.5		Matracia & Matracia Partnershi	UST
80049428	38.87861	-84.6994	Union	Boone	1/5/2004	MONITORING WELL - AMBIENT MONITORING	740	6.5	733.5	597.5		Matracia & Matracia Partnershi	UST
80049429	38.87861	-84.6994	Union	Boone	1/5/2004	MONITORING WELL - AMBIENT MONITORING	740	4	736	600		Matracia & Matracia Partnershi	UST
80050961	38.85639	-84.6669	Verona	Boone	11/9/2005	MONITORING WELL - AMBIENT MONITORING	800					Bavarian Trucking Co Inc	Solid Waste
80053954	38.90083	-84.8369	Rising Sun	Boone	9/20/2007	MONITORING WELL - AMBIENT MONITORING		45				Duke Energy Kentucky Inc	Solid Waste
80053955	38.90389	-84.8369	Rising Sun	Boone	9/18/2007	MONITORING WELL - AMBIENT MONITORING		117.5				Duke Energy Kentucky Inc	Solid Waste

Exhibit 6C

Sterling Materials – Verona, KY
Underground Cross Section





Pencil Cave Bentonite Seam
Thickness: ≈ 18"
Elevation: +266'

Mud Cave Bentonite Seam
Thickness: ≈ 24"
Elevation: +247'

Surface Varies from 500' to 800'

+500' (Top of Slope Elevation)

+393' (Mine Entrance Elevation)

Gypsum – Delivery Shaft

+266' – Pencil Cave Bentonite Seam Elevation

+247' – Mud Cave Bentonite Seam Elevation

+136' (Avg Level 1 Ceiling Elevation)

1st Level

+86' (Avg Level 1 Floor Elevation)

+28' (Avg Level 2 Ceiling Elevation)

2nd Level

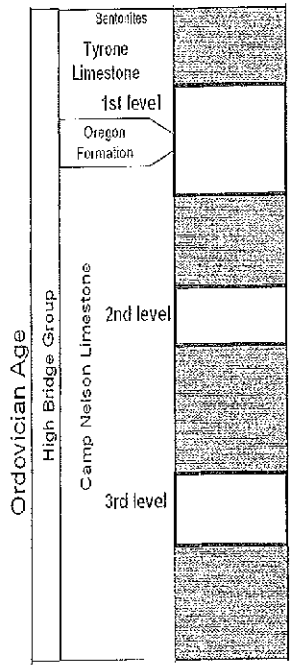
+2' (Avg Level 1 Floor Elevation)

-149' (Avg Level 3 Ceiling Elevation)

3rd Level

-182' (Avg Level 1 Floor Elevation)

Interior Mine Photo: Typical Storage Area



Notes:
- Drawing Not to Scale.
- Mine ceiling and floor elevations are based on average elevations across each level.
- Bentonite Seam and Rock Stratigraphy Information Resource: Kentucky Geological Survey, University of Kentucky, Lexington Series X, 1974. High Carbonate Rock in the High Bridge Group (Middle Ordovician), Boone County, Kentucky. Author: Garland R. Dever, Jr.
- Elevations are referenced at Sea Level.

DEP 7059F (1/06)

Attachment 7
Special Waste Sources and Amounts Log Sheet

1. Registrant Name: _____ 2. County: _____

3. Agency Interest #: _____ 4. Registration #: ____-_____

5. Contact Person: _____ 6. Title: _____

7. Phone #: (___)___-____ 8. Fax #: (___)___-____ 9. Cell #: (___)___-____

Report prepared for the months of: _____, _____ and _____ Year: ____

Name of Special Waste Generator (Source of Special Waste)	Amount Received (Dry Tons)

10. **"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for such violations."**

Authorized Signature _____ Date _____

Name: (Typed or Printed) _____ Title: _____

Annual Revenue Requirements - Ghent Landfill - KU Project 30 with Beneficial Reuse -Sterling Ventures Mine

	Capital					O&M				Total
	Phase 1	Phase 2	Phase 3	Final Cap	Total	Non-Power	Power	Beneficial Reuse	Total O&M	
12/31/2009	480,509	-	-		480,509		84,800	-	84,800	565,309
12/31/2010	3,553,056	-	-		3,553,056		127,832	-	127,832	3,680,888
12/31/2011	7,177,211	-	-		7,177,211		198,348	-	198,348	7,375,559
12/31/2012	13,654,069	-	-		13,654,069		294,577	-	294,577	13,948,646
12/31/2013	14,678,389	-	-		14,678,389		24,380,117	(489,556)	23,890,561	38,568,950
12/31/2014	15,152,993	-	-		15,152,993		26,056,704	(495,467)	25,561,237	40,714,230
12/31/2015	14,539,006	-	-		14,539,006		27,290,868	(436,289)	26,854,579	41,393,584
12/31/2016	13,883,815	-	-		13,883,815		28,578,421	(387,511)	28,190,911	42,074,725
12/31/2017	13,255,915	-	-		13,255,915		29,956,559	(348,918)	29,607,640	42,863,556
12/31/2018	12,653,016	-	-		12,653,016		31,612,174	(501,636)	31,110,538	43,763,554
12/31/2019	12,016,402	-	-		12,016,402		33,594,783	(873,325)	32,721,458	44,737,860
12/31/2020	11,379,788	-	-		11,379,788		35,566,861	(1,101,031)	34,465,830	45,845,618
12/31/2021	10,743,173	-	-		10,743,173		38,056,766	(1,114,736)	36,942,030	47,685,203
12/31/2022	10,106,559	-	-		10,106,559		39,920,041	(1,025,754)	38,894,287	49,000,846
12/31/2023	9,469,945	-	-		9,469,945		41,890,306	(931,433)	40,958,872	50,428,818
12/31/2024	8,833,331	-	-		8,833,331		44,529,811	(1,382,478)	43,147,333	51,980,664
12/31/2025	8,196,717	-	-		8,196,717		47,885,193	(2,392,499)	45,492,694	53,689,411
12/31/2026	7,560,103	52,720	-		7,612,823		51,399,644	(3,382,211)	48,017,432	55,630,256
12/31/2027	6,923,489	156,032	-		7,079,520		54,431,913	(3,728,255)	50,703,658	57,783,179
12/31/2028	6,286,875	993,170	-		7,280,044		55,178,509	(3,378,832)	51,799,676	59,079,720
12/31/2029	5,650,260	2,639,761	-		8,290,021		57,858,589	(2,798,637)	55,059,952	63,349,973
12/31/2030	5,013,646	3,691,001	-		8,704,647		60,699,474	(2,349,913)	58,349,561	67,054,208
12/31/2031	4,377,032	3,904,584	-		8,281,616		63,710,812	(2,101,930)	61,608,882	69,890,498
12/31/2032	3,740,418	3,734,217	-		7,474,635		66,902,830	(1,942,577)	64,960,253	72,434,888
12/31/2033	3,103,804	3,563,850	-		6,667,654		70,286,369	(1,773,662)	68,512,707	75,180,361
12/31/2034	2,467,190	3,393,483	-		5,860,673		73,872,921	(1,594,613)	72,278,307	78,138,980
12/31/2035	1,830,576	3,223,116	-		5,053,692		77,674,665	(1,404,821)	76,269,844	81,323,536
12/31/2036	1,193,961	3,052,749	-		4,246,711		81,704,515	(1,203,641)	80,500,873	84,747,584
12/31/2037	557,347	2,882,383	-		3,439,730		85,976,155	(990,391)	84,985,764	88,425,494
2009 PVRR	111,212,472	5,355,077	-		116,567,550		354,316,774	(10,448,976)	343,867,798	460,435,348
Cubic Yards	17,350,000	7,807,500			25,157,500		25,157,500		25,157,500	25,157,500
									$/CY (PVRR)	$ 18.30

CASE	Option 30	Option 30 with Benefical Reuse
PVRR		
Capital	$ 192,717,582	$ 116,567,550
O&M	354,316,774	343,867,798
Total	$ 547,034,356	$ 460,435,348
Delta to Least Cost	**$ 86,599,008**	Least Cost
Unit Cost (2009 PVRR $/CY)	$ 21.74	$ 18.30

NOTE-This Table Requires $9.00 Price Inserted into cell D16 of PVRR Analysis

Annual Revenue Requirements - Ghent Landfill - KU Project 30 with Beneficial Reuse -Sterling Ventures Mine With Scrubber Stone Backhaul

	Capital					O&M				Total
	Phase 1	Phase 2	Phase 3	Final Cap	Total	Non-Power	Power	Beneficial Reuse	Total O&M	
12/31/2009	480,509	-	-		480,509		84,800	-	84,800	565,309
12/31/2010	3,553,056	-	-		3,553,056		127,832	-	127,832	3,680,888
12/31/2011	7,177,211	-	-		7,177,211		198,348	-	198,348	7,375,559
12/31/2012	13,654,069	-	-		13,654,069		294,577	-	294,577	13,948,646
12/31/2013	14,678,389	-	-		14,678,389		24,380,117	(1,989,556)	22,390,561	37,068,950
12/31/2014	15,152,993	-	-		15,152,993		26,056,704	(2,085,467)	23,971,237	39,124,230
12/31/2015	14,539,006	-	-		14,539,006		27,290,868	(2,121,689)	25,169,179	39,708,184
12/31/2016	13,883,815	-	-		13,883,815		28,578,421	(2,174,035)	26,404,387	40,288,201
12/31/2017	13,255,915	-	-		13,255,915		29,956,559	(2,242,634)	27,713,925	40,969,840
12/31/2018	12,653,016	-	-		12,653,016		31,612,174	(2,508,974)	29,103,199	41,756,215
12/31/2019	12,016,402	-	-		12,016,402		33,594,783	(3,001,104)	30,593,680	42,610,081
12/31/2020	11,379,788	-	-		11,379,788		35,566,861	(3,356,477)	32,210,385	43,590,172
12/31/2021	10,743,173	-	-		10,743,173		38,056,766	(3,505,508)	34,551,257	45,294,431
12/31/2022	10,106,559	-	-		10,106,559		39,920,041	(3,559,973)	36,360,069	46,466,628
12/31/2023	9,469,945	-	-		9,469,945		41,890,306	(3,617,705)	38,272,601	47,742,546
12/31/2024	8,833,331	-	-		8,833,331		44,529,811	(4,229,926)	40,299,885	49,133,216
12/31/2025	8,196,717	-	-		8,196,717		47,885,193	(5,410,794)	42,474,399	50,671,116
12/31/2026	7,560,103	52,720	-		7,612,823		51,399,644	(6,581,604)	44,818,040	52,430,863
12/31/2027	6,923,489	156,032	-		7,079,520		54,431,913	(7,119,611)	47,312,302	54,391,823
12/31/2028	6,286,875	993,170	-		7,280,044		55,178,509	(6,973,670)	48,204,839	55,484,883
12/31/2029	5,650,260	2,639,761	-		8,290,021		57,858,589	(6,609,164)	51,249,425	59,539,446
12/31/2030	5,013,646	3,691,001	-		8,704,647		60,699,474	(6,389,072)	54,310,402	63,015,049
12/31/2031	4,377,032	3,904,584	-		8,281,616		63,710,812	(6,383,438)	57,327,373	65,608,989
12/31/2032	3,740,418	3,734,217	-		7,474,635		66,902,830	(6,480,976)	60,421,854	67,896,489
12/31/2033	3,103,804	3,563,850	-		6,667,654		70,286,369	(6,584,365)	63,702,004	70,369,657
12/31/2034	2,467,190	3,393,483	-		5,860,673		73,872,921	(6,693,958)	67,178,962	73,039,635
12/31/2035	1,830,576	3,223,116	-		5,053,692		77,674,665	(6,810,127)	70,864,538	75,918,230
12/31/2036	1,193,961	3,052,749	-		4,246,711		81,704,515	(6,933,266)	74,771,249	79,017,960
12/31/2037	557,347	2,882,383	-		3,439,730		85,976,155	(7,063,793)	78,912,362	82,352,092
2009 PVRR	111,212,472	5,355,077	-		116,567,550		354,316,774	(33,255,638)	321,061,136	437,628,685
Cubic Yards	17,350,000	7,807,500			25,157,500		25,157,500		25,157,500	25,157,500
									$/CY (PVRR)	$ 17.40

CASE	Option 30	Option 30 with Benefical Reuse
PVRR		
Capital	$ 192,717,582	$ 116,567,550
O&M	354,316,774	321,061,136
Total	$ 547,034,356	$ 437,628,685
Delta to Least Cost	**$ 109,405,671**	Least Cost
Unit Cost (2009 PVRR $/CY)	$ 21.74	$ 17.40

	Annual Revenue Requirements - Ghent Landfill - KU Project 30									
	Capital					O&M				Total
	Phase 1	Phase 2	Phase 3	Final Cap	Total	Non-Power	Power	Beneficial Reuse	Total O&M	
12/31/2009	480,509	-	-		480,509		84,800		84,800	565,309
12/31/2010	5,098,729	-	-		5,098,729		127,832		127,832	5,226,561
12/31/2011	11,571,793	-	-		11,571,793		198,348		198,348	11,770,141
12/31/2012	19,480,236	-	-		19,480,236		294,577		294,577	19,774,813
12/31/2013	20,326,462	-	-		20,326,462		24,380,117		24,380,117	44,706,579
12/31/2014	20,544,834	-	-		20,544,834		26,056,704		26,056,704	46,601,539
12/31/2015	19,687,280	-	-		19,687,280		27,290,868		27,290,868	46,978,148
12/31/2016	18,799,210	52,684	-		18,851,894		28,578,421		28,578,421	47,430,316
12/31/2017	17,948,314	155,939	-		18,104,253		29,956,559		29,956,559	48,060,812
12/31/2018	17,131,380	993,170	-		18,124,550		31,612,174		31,612,174	49,736,723
12/31/2019	16,268,561	2,639,761	-		18,908,322		33,594,783		33,594,783	52,503,105
12/31/2020	15,405,743	3,691,001	-		19,096,743		35,566,861		35,566,861	54,663,605
12/31/2021	14,542,924	3,904,584	-		18,447,508		38,056,766		38,056,766	56,504,274
12/31/2022	13,680,105	3,734,217	-		17,414,322		39,920,041		39,920,041	57,334,363
12/31/2023	12,817,286	3,563,850	-		16,381,136		41,890,306		41,890,306	58,271,442
12/31/2024	11,954,467	3,393,483	2,082,456		17,430,407		44,529,811		44,529,811	61,960,218
12/31/2025	11,091,649	3,223,116	6,215,971		20,530,736		47,885,193		47,885,193	68,415,929
12/31/2026	10,228,830	3,052,749	10,179,118		23,460,698		51,399,644		51,399,644	74,860,342
12/31/2027	9,366,011	2,882,383	11,617,513		23,865,907		54,431,913		54,431,913	78,297,820
12/31/2028	8,503,192	2,712,016	11,117,397		22,332,605		55,178,509		55,178,509	77,511,114
12/31/2029	7,640,374	2,541,649	10,617,281		20,799,303		57,858,589		57,858,589	78,657,892
12/31/2030	6,777,555	2,371,282	10,117,164		19,266,001		60,699,474		60,699,474	79,965,474
12/31/2031	5,914,736	2,200,915	9,617,048		17,732,699		63,710,812		63,710,812	81,443,510
12/31/2032	5,051,917	2,030,548	9,116,931		16,199,397		66,902,830		66,902,830	83,102,226
12/31/2033	4,189,098	1,860,181	8,616,815		14,666,095		70,286,369		70,286,369	84,952,464
12/31/2034	3,326,280	1,689,814	8,116,699		13,132,793		73,872,921		73,872,921	87,005,713
12/31/2035	2,463,461	1,519,447	7,616,582		11,599,490		77,674,665		77,674,665	89,274,156
12/31/2036	1,600,642	1,349,080	7,116,466		10,066,188		81,704,515		81,704,515	91,770,703
12/31/2037	737,823	1,178,714	6,616,349		8,532,886		85,976,155		85,976,155	94,509,041
2009 PVRR	153,383,226	14,945,173	24,389,184		192,717,582		354,316,774		354,316,774	547,034,356
Cubic Yards	9,542,500	6,072,500	9,542,500		25,157,500		25,157,500		25,157,500	25,157,500
									$/CY (PVRR)	$ 21.74

	A	B	C	D	E	F	G	H	I
1	Revenue Requirments Summary								
2	Gypsum Disposal at Sterling Materials					2009	2010	2011	2012
3									
4	Revenue Requirement								
5	Eligible Plant					$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356
6	Less Gypsum Plant Requirements/Phase Delays					$ -	$ (14,090,000)	$ (40,060,000)	$ (53,110,000)
7	Revised Eligible Plant					$ 4,321,671	$ 32,388,846	$ 65,425,803	$ 124,467,356
8	Less Accumulated Depreciation								
9	Less Deferred Tax Balance								
10	Environmental Compliance Rate Base					$ 4,321,671	$ 32,388,846	$ 65,425,803	$ 124,467,356
11	Rate of Return					11.1%	10.97%	10.97%	10.97%
12		Assumed	Tons (1.155)	1,000,000		$ 480,509	$ 3,553,056	$ 7,177,211	$ 13,654,069
13		86.7500%	Cubic yards	867,500					
14	Operating Expenses					$ 84,800	$ 121,349	$ 128,630	$ 136,348
15	less Gypsum to On-site Landfill								
16	Gypsum to Sterling			**$ 10.50**					
17	Net Operating					$ 84,800	$ 121,349	$ 128,630	$ 136,348
18	Annual Depreciation								
19	Annual Property Tax Expense						$ 6,483	$ 69,718	$ 158,229
20	Total OE					$ 84,800	$ 127,832	$ 198,348	$ 294,577
21									
22	Total E(m) Gypsum to Sterling				**$ 460,435,348**	$ 565,309	$ 3,680,888	$ 7,375,559	$ 13,948,646
23	Total E(m) - Project 30 (See below)				**$ 547,034,356**	$ 565,309	$ 5,226,561	$ 11,770,141	$ 19,774,813
24									
25	**Difference**		**PVRR**	**7.81%**	**$ (86,599,008)**	$ -	$ (1,545,673)	$ (4,394,582)	$ (5,826,167)
26	Date					12/31/2009	12/31/2010	12/31/2011	12/31/2012
27									
28	Revenue Requirments Summary								
29	2009 Amended Plan								
30	Project 30		Ghent Landfill Phase I						
31	See Exhibit B					2009	2010	2011	2012
32									
33	Revenue Requirement								
34	Eligible Plant					$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356
35	Less Gypsum Plant Requirements/Phase Delays					$ -	$ -	$ -	$ -
36	Revised Eligible Plant					$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356
37	Less Accumulated Depreciation								
38	Less Deferred Tax Balance								
39	Environmental Compliance Rate Base					$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356
40	Rate of Return					11.1%	10.97%	10.97%	10.97%
41						$ 480,509	$ 5,098,729	$ 11,571,793	$ 19,480,236
42									
43	Operating Expenses					$ 84,800	$ 121,349	$ 128,630	$ 136,348
44	less Gypsum to On-site Landfill								
45	Gypsum to Sterling								
46	Net Operating					$ 84,800	$ 121,349	$ 128,630	$ 136,348
47	Annual Depreciation								
48	Annual Property Tax Expense						$ 6,483	$ 69,718	$ 158,229

	J	K	L	M	N	O	P	Q	R	S	T	U	V
1													
2	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
3													
4													
5	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 203,078,976	$ 204,078,976	$ 212,078,976	$ 228,078,976	$ 239,078,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 262,328,976	$ 302,328,976
6	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,610,000)	$ (54,610,000)	$ (62,610,000)	$ (78,610,000)	$ (89,610,000)	$ (93,110,000)	$ (93,110,000)	$ (93,110,000)	$ (112,860,000)	$ (152,860,000)
7	$ 138,023,918	$ 148,831,953	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976
8	$ (3,690,414)	$ (7,842,826)	$ (12,013,010)	$ (16,183,194)	$ (20,353,378)	$ (24,523,563)	$ (28,693,747)	$ (32,863,931)	$ (37,034,115)	$ (41,204,299)	$ (45,374,483)	$ (49,544,667)	$ (53,714,851)
9	$ (528,683)	$ (2,857,926)	$ (4,921,730)	$ (6,724,117)	$ (8,277,719)	$ (9,603,427)	$ (11,236,471)	$ (12,869,515)	$ (14,502,559)	$ (16,135,603)	$ (17,768,648)	$ (19,401,692)	$ (21,034,736)
10	$ 133,804,821	$ 138,131,202	$ 132,534,236	$ 126,561,665	$ 120,837,879	$ 115,341,986	$ 109,538,758	$ 103,735,530	$ 97,932,302	$ 92,129,073	$ 86,325,845	$ 80,522,617	$ 74,719,389
11	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
12	$ 14,678,389	$ 15,152,993	$ 14,539,006	$ 13,883,815	$ 13,255,915	$ 12,653,016	$ 12,016,402	$ 11,379,788	$ 10,743,173	$ 10,106,559	$ 9,469,945	$ 8,833,331	$ 8,196,717
13								$ 27,051	$ 661,940				
14	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,556	**$ 28,601,000**	**$ 30,979,000**	$ 32,837,740	$ 34,808,004	$ 36,896,485	$ 39,110,274
15	$ (9,569,527)	$ (10,143,699)	$ (10,752,321)	$ (11,397,460)	$ (12,081,307)	$ (12,806,186)	$ (13,574,557)	$ (14,389,030)	$ (15,252,372)	$ (16,167,515)	$ (17,137,565)	$ (18,165,819)	$ (19,255,768)
16	$ 10,500,000	$ 11,130,000	$ 11,797,800	$ 12,505,668	$ 13,256,008	$ 14,051,369	$ 14,894,451	$ 15,788,118	$ 16,735,405	$ 17,739,529	$ 18,803,901	$ 19,932,135	$ 21,128,063
17	$ 19,933,781	$ 21,129,808	$ 22,397,596	$ 23,741,452	$ 25,165,940	$ 26,675,896	$ 28,276,450	$ 30,000,087	$ 32,462,033	$ 34,409,755	$ 36,474,340	$ 38,662,800	$ 40,982,568
18	$ 3,690,414	$ 4,152,411	$ 4,170,184	$ 4,170,185	$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,170,184
19	$ 266,366	$ 279,017	$ 286,798	$ 279,274	$ 271,517	$ 264,458	$ 274,825	$ 295,558	$ 309,813	$ 314,348	$ 314,348	$ 314,348	$ 339,942
20	$ 23,890,561	$ 25,561,237	$ 26,854,579	$ 28,190,911	$ 29,607,640	$ 31,110,538	$ 32,721,458	$ 34,465,830	$ 36,942,030	$ 38,894,287	$ 40,958,872	$ 43,147,333	$ 45,492,694
21													
22	$ 38,568,950	$ 40,714,230	$ 41,393,584	$ 42,074,725	$ 42,863,556	$ 43,763,554	$ 44,737,860	$ 45,845,618	$ 47,685,203	$ 49,000,846	$ 50,428,818	$ 51,980,664	$ 53,689,411
23	$ 44,706,579	$ 46,601,539	$ 46,978,148	$ 47,430,316	$ 48,060,812	$ 49,736,723	$ 52,503,105	$ 54,663,605	$ 56,504,274	$ 57,334,363	$ 58,271,442	$ 61,960,218	$ 68,415,929
24													
25	$ (6,137,629)	$ (5,887,309)	$ (5,584,564)	$ (5,355,590)	$ (5,197,256)	$ (5,973,170)	$ (7,765,245)	$ (8,817,987)	$ (8,819,070)	$ (8,333,517)	$ (7,842,625)	$ (9,979,554)	$ (14,726,518)
26	12/31/2013	12/31/2014	12/31/2015	12/31/2016	12/31/2017	12/31/2018	12/31/2019	12/31/2020	12/31/2021	12/31/2022	12/31/2023	12/31/2024	12/31/2025
27													
28													
29													
30													
31	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
32				**Start Phase II**								**Start Phase III**	
33				$ 500,000	$ 1,000,000	$ 8,000,000	$ 16,000,000	$ 11,000,000	$ 3,500,000			$ 19,750,000	$ 40,000,000
34	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 203,078,976	$ 204,078,976	$ 212,078,976	$ 228,078,976	$ 239,078,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 262,328,976	$ 302,328,976
35	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
36	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 203,078,976	$ 204,078,976	$ 212,078,976	$ 228,078,976	$ 239,078,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 262,328,976	$ 302,328,976
37	$ (5,110,443)	$ (10,744,623)	$ (16,396,576)	$ (22,062,480)	$ (27,756,283)	$ (33,673,286)	$ (40,036,689)	$ (46,706,992)	$ (53,474,945)	$ (60,242,897)	$ (67,010,850)	$ (74,329,828)	$ (82,764,806)
38	$ (732,114)	$ (3,915,341)	$ (6,717,677)	$ (9,166,960)	$ (11,288,480)	$ (13,186,459)	$ (15,678,367)	$ (18,290,458)	$ (20,940,788)	$ (23,591,119)	$ (26,241,449)	$ (29,107,561)	$ (32,410,698)
39	$ 185,291,361	$ 187,281,989	$ 179,464,723	$ 171,849,536	$ 165,034,213	$ 165,219,232	$ 172,363,920	$ 174,081,526	$ 168,163,243	$ 158,744,960	$ 149,326,677	$ 158,891,587	$ 187,153,472
40	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
41	$ 20,326,462	$ 20,544,834	$ 19,687,280	$ 18,851,894	$ 18,104,253	$ 18,124,550	$ 18,908,322	$ 19,096,743	$ 18,447,508	$ 17,414,322	$ 16,381,136	$ 17,430,407	$ 20,530,736
42								$ 27,051	$ 661,940				
43	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,556	**$ 28,601,000**	**$ 30,979,000**	$ 32,837,740	$ 34,808,004	$ 36,896,485	$ 39,110,274
44	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
45	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
46	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,556	$ 28,601,000	$ 30,979,000	$ 32,837,740	$ 34,808,004	$ 36,896,485	$ 39,110,274
47	$ 5,110,443	$ 5,634,180	$ 5,651,953	$ 5,665,904	$ 5,693,803	$ 5,917,003	$ 6,363,403	$ 6,670,303	$ 6,767,953	$ 6,767,953	$ 6,767,953	$ 7,318,978	$ 8,434,978
48	$ 266,366	$ 279,017	$ 286,798	$ 279,274	$ 271,517	$ 264,458	$ 274,825	$ 295,558	$ 309,813	$ 314,348	$ 314,348	$ 314,348	$ 339,942

	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH
1												
2	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037
3	**Start Phase II**											
4	$ 500,000	$ 1,000,000	$ 8,000,000	$ 16,000,000	$ 11,000,000	$ 3,500,000						
5	$ 342,328,976	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
6	$ (192,360,000)	$ (209,031,024)	$ (201,031,024)	$ (185,031,024)	$ (174,031,024)	$ (170,531,024)	$ (170,531,024)	$ (170,531,024)	$ (170,531,024)	$ (170,531,024)	$ (170,531,024)	$ (170,531,024)
7	$ 149,968,976	$ 150,968,976	$ 158,968,976	$ 174,968,976	$ 185,968,976	$ 189,468,976	$ 189,468,976	$ 189,468,976	$ 189,468,976	$ 189,468,976	$ 189,468,976	$ 189,468,976
8	$ (57,898,986)	$ (62,111,020)	$ (66,546,254)	$ (71,427,888)	$ (76,616,422)	$ (81,902,606)	$ (87,188,790)	$ (92,474,974)	$ (97,761,158)	$ (103,047,342)	$ (108,333,526)	$ (113,619,710)
9	$ (22,673,243)	$ (24,322,675)	$ (26,059,513)	$ (27,971,161)	$ (30,002,991)	$ (32,073,060)	$ (34,143,130)	$ (36,213,200)	$ (38,283,269)	$ (40,353,339)	$ (42,423,409)	$ (44,493,479)
10	$ 69,396,748	$ 64,535,281	$ 66,363,209	$ 75,569,927	$ 79,349,563	$ 75,493,310	$ 68,137,056	$ 60,780,802	$ 53,424,548	$ 46,068,295	$ 38,712,041	$ 31,355,787
11	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
12	$ 7,612,823	$ 7,079,520	$ 7,280,044	$ 8,290,021	$ 8,704,647	$ 8,281,616	$ 7,474,635	$ 6,667,654	$ 5,860,673	$ 5,053,692	$ 4,246,711	$ 3,439,730
13			$ (1,912,962)									
14	$ 41,456,890	$ 43,944,304	**$ 44,668,000**	$ 47,348,080	$ 50,188,965	$ 53,200,303	$ 56,392,321	$ 59,775,860	$ 63,362,412	$ 67,164,156	$ 71,194,006	$ 75,465,646
15	$ (20,411,115)	$ (21,635,781)	$ (22,933,928)	$ (24,309,964)	$ (25,768,562)	$ (27,314,676)	$ (28,953,556)	$ (30,690,769)	$ (32,532,216)	$ (34,484,149)	$ (36,553,198)	$ (38,746,389)
16	$ 22,395,747	$ 23,739,492	$ 25,163,861	$ 26,673,693	$ 28,274,114	$ 29,970,561	$ 31,768,795	$ 33,674,922	$ 35,695,418	$ 37,837,143	$ 40,107,371	$ 42,513,814
17	$ 43,441,522	$ 46,048,014	$ 46,897,933	$ 49,711,809	$ 52,694,517	$ 55,856,188	$ 59,207,559	$ 62,760,013	$ 66,525,614	$ 70,517,151	$ 74,748,180	$ 79,233,071
18	$ 4,184,134	$ 4,212,034	$ 4,435,234	$ 4,881,634	$ 5,188,534	$ 5,286,184	$ 5,286,184	$ 5,286,184	$ 5,286,184	$ 5,286,184	$ 5,286,184	$ 5,286,184
19	$ 391,776	$ 443,610	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510
20	$ 48,017,432	$ 50,703,658	$ 51,799,676	$ 55,059,952	$ 58,349,561	$ 61,608,882	$ 64,960,253	$ 68,512,707	$ 72,278,307	$ 76,269,844	$ 80,500,873	$ 84,985,764
21												
22	$ 55,630,256	$ 57,783,179	$ 59,079,720	$ 63,349,973	$ 67,054,208	$ 69,890,498	$ 72,434,888	$ 75,180,361	$ 78,138,980	$ 81,323,536	$ 84,747,584	$ 88,425,494
23	$ 74,860,342	$ 78,297,820	$ 77,511,114	$ 78,657,892	$ 79,965,474	$ 81,443,510	$ 83,102,226	$ 84,952,464	$ 87,005,713	$ 89,274,156	$ 91,770,703	$ 94,509,041
24												
25	$ (19,230,086)	$ (20,514,642)	$ (18,431,393)	$ (15,307,918)	$ (12,911,267)	$ (11,553,012)	$ (10,667,338)	$ (9,772,103)	$ (8,866,733)	$ (7,950,620)	$ (7,023,119)	$ (6,083,547)
26	12/31/2026	12/31/2027	12/31/2028	12/31/2029	12/31/2030	12/31/2031	12/31/2032	12/31/2033	12/31/2034	12/31/2035	12/31/2036	12/31/2037
27												
28												
29												
30												
31	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037
32												
33	$ 40,000,000	$ 17,671,024										
34	$ 342,328,976	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
35	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
36	$ 342,328,976	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
37	$ (92,315,784)	$ (102,359,783)	$ (112,403,782)	$ (122,447,782)	$ (132,491,781)	$ (142,535,780)	$ (152,579,779)	$ (162,623,779)	$ (172,667,778)	$ (182,711,777)	$ (192,755,777)	$ (202,799,776)
38	$ (36,150,861)	$ (40,084,091)	$ (44,017,321)	$ (47,950,551)	$ (51,883,781)	$ (55,817,012)	$ (59,750,242)	$ (63,683,472)	$ (67,616,702)	$ (71,549,932)	$ (75,483,162)	$ (79,416,392)
39	$ 213,862,331	$ 217,556,126	$ 203,578,896	$ 189,601,667	$ 175,624,438	$ 161,647,208	$ 147,669,979	$ 133,692,750	$ 119,715,520	$ 105,738,291	$ 91,761,061	$ 77,783,832
40	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
41	$ 23,460,698	$ 23,865,907	$ 22,332,605	$ 20,799,303	$ 19,266,001	$ 17,732,699	$ 16,199,397	$ 14,666,095	$ 13,132,793	$ 11,599,490	$ 10,066,188	$ 8,532,886
42			$ (1,912,962)									
43	$ 41,456,890	$ 43,944,304	**$ 44,668,000**	$ 47,348,080	$ 50,188,965	$ 53,200,303	$ 56,392,321	$ 59,775,860	$ 63,362,412	$ 67,164,156	$ 71,194,006	$ 75,465,646
44	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
45	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
46	$ 41,456,890	$ 43,944,304	$ 44,668,000	$ 47,348,080	$ 50,188,965	$ 53,200,303	$ 56,392,321	$ 59,775,860	$ 63,362,412	$ 67,164,156	$ 71,194,006	$ 75,465,646
47	$ 9,550,978	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999
48	$ 391,776	$ 443,610	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510

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12	$ 259,765,660
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22	$ 1,471,356,097
23	$ 1,731,854,332
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25	**$ (260,498,235)**
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27	$ (260,498,235)
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31	
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33	$ 117,421,024
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41	$ 482,133,777
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	A	B	C	D	E	F	G	H	I
49	Total OE					$ 84,800	$ 127,832	$ 198,348	$ 294,577
50									
51	Total E(m) Gypsum to On-site Landfill as Calculated				**547,034,356**	$ 565,309	$ 5,226,561	$ 11,770,141	$ 19,774,813
52	Total E(m) Gypsum to On-site Landfill per KU					$ 565,309	$ 5,226,225	$ 11,769,378	$ 19,773,528
53									
54	Calculation Check Difference					$ -	$ 336	$ 763	$ 1,285
55									
56									
57	Site E/F	Hauling cost of Ash 2.25 mile round trip							
58		Haul Road Maintenance							
59	Total								
60	Reduce by 50% for Site M					$ -	$ -	$ -	$ -
61	**Difference**		**PVRR**	**7.81%**	**$ (21,865,903)**				

	J	K	L	M	N	O	P	Q	R	S	T	U	V
49	$ 24,380,117	$ 26,056,704	$ 27,290,868	$ 28,578,421	$ 29,956,559	$ 31,612,174	$ 33,594,783	$ 35,566,861	$ 38,056,766	$ 39,920,041	$ 41,890,306	$ 44,529,811	$ 47,885,193
50													
51	$ 44,706,579	$ 46,601,539	$ 46,978,148	$ 47,430,316	$ 48,060,812	$ 49,736,723	$ 52,503,105	$ 54,663,605	$ 56,504,274	$ 57,334,363	$ 58,271,442	$ 61,960,218	$ 68,415,929
52	$ 44,705,239	$ 46,600,208	$ 46,976,843	$ 47,458,553	$ 48,044,547	$ 48,653,648							
53													
54	$ 1,340	$ 1,331	$ 1,305	$ (28,237)	$ 16,265	$ 1,083,075							
55													
56													
57	$ 2,822,723	$ 2,992,086	$ 3,171,612	$ 3,361,908	$ 3,563,623	$ 3,777,440	$ 4,004,087	$ 4,244,332	$ 4,498,992	$ 4,768,931	$ 5,055,067	$ 5,358,371	$ 5,679,873
58	$ 53,529	$ 56,741	$ 60,145	$ 63,754	$ 67,579	$ 71,634	$ 75,932	$ 80,488	$ 85,317	$ 90,436	$ 95,862	$ 101,614	$ 107,711
59	$ 2,876,252	$ 3,048,827	$ 3,231,757	$ 3,425,662	$ 3,631,202	$ 3,849,074	$ 4,080,018	$ 4,324,820	$ 4,584,309	$ 4,859,367	$ 5,150,929	$ 5,459,985	$ 5,787,584
60	$ 1,438,126	$ 1,524,414	$ 1,615,878	$ 1,712,831	$ 1,815,601	$ 1,924,537	$ 2,040,009	$ 2,162,410	$ 2,292,154	$ 2,429,684	$ 2,575,465	$ 2,729,993	$ 2,893,792
61													

	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH
49	$ 51,399,644	$ 54,431,913	$ 55,178,509	$ 57,858,589	$ 60,699,474	$ 63,710,812	$ 66,902,830	$ 70,286,369	$ 73,872,921	$ 77,674,665	$ 81,704,515	$ 85,976,155
50												
51	$ 74,860,342	$ 78,297,820	$ 77,511,114	$ 78,657,892	$ 79,965,474	$ 81,443,510	$ 83,102,226	$ 84,952,464	$ 87,005,713	$ 89,274,156	$ 91,770,703	$ 94,509,041
52												
53												
54												
55												
56												
57	$ 6,020,666	$ 6,381,906	$ 6,764,820	$ 7,170,709	$ 7,600,952	$ 8,057,009	$ 8,540,429	$ 9,052,855	$ 9,596,026	$ 10,171,788	$ 10,782,095	$ 11,429,021
58	$ 114,174	$ 121,024	$ 128,285	$ 135,982	$ 144,141	$ 152,790	$ 161,957	$ 171,675	$ 181,975	$ 192,894	$ 204,467	$ 216,735
59	$ 6,134,839	$ 6,502,930	$ 6,893,105	$ 7,306,692	$ 7,745,093	$ 8,209,799	$ 8,702,387	$ 9,224,530	$ 9,778,002	$ 10,364,682	$ 10,986,563	$ 11,645,756
60	$ 3,067,420	$ 3,251,465	$ 3,446,553	$ 3,653,346	$ 3,872,547	$ 4,104,899	$ 4,351,193	$ 4,612,265	$ 4,889,001	$ 5,182,341	$ 5,493,281	$ 5,822,878
61												

	AI
49	$ 1,249,720,555
50	
51	$ 1,731,854,332
52	
53	
54	
55	
56	
57	
58	
59	
60	
61	

Cell: D16
Comment: John Walters:
Insert $9.00 for Limestone Backhaul calculation

	A	B	C	D	E	F	G	H	I
1		**Annual Revenue Requirements - Ghent Landfill - KU Project 30**							
2									
3		Capital					O&M		
4									
5									Beneficial
6		Phase 1	Phase 2	Phase 3	Final Cap	Total	Non-Power	Power	Reuse
7	12/31/2009	480,509	-	-		480,509		84,800	
8	12/31/2010	5,098,729	-	-		5,098,729		127,832	
9	12/31/2011	11,571,793	-	-		11,571,793		198,348	
10	12/31/2012	19,480,236	-	-		19,480,236		294,577	
11	12/31/2013	20,326,462	-	-		20,326,462		24,380,117	
12	12/31/2014	20,544,834	-	-		20,544,834		26,056,704	
13	12/31/2015	19,687,280	-	-		19,687,280		27,290,868	
14	12/31/2016	18,799,210	52,684	-		18,851,894		28,578,421	
15	12/31/2017	17,948,314	155,939	-		18,104,253		29,956,559	
16	12/31/2018	17,131,380	993,170	-		18,124,550		31,612,174	
17	12/31/2019	16,268,561	2,639,761	-		18,908,322		33,594,783	
18	12/31/2020	15,405,743	3,691,001	-		19,096,743		35,566,861	
19	12/31/2021	14,542,924	3,904,584	-		18,447,508		38,056,766	
20	12/31/2022	13,680,105	3,734,217	-		17,414,322		39,920,041	
21	12/31/2023	12,817,286	3,563,850	-		16,381,136		41,890,306	
22	12/31/2024	11,954,467	3,393,483	2,082,456		17,430,407		44,529,811	
23	12/31/2025	11,091,649	3,223,116	6,215,971		20,530,736		47,885,193	
24	12/31/2026	10,228,830	3,052,749	10,179,118		23,460,698		51,399,644	
25	12/31/2027	9,366,011	2,882,383	11,617,513		23,865,907		54,431,913	
26	12/31/2028	8,503,192	2,712,016	11,117,397		22,332,605		55,178,509	
27	12/31/2029	7,640,374	2,541,649	10,617,281		20,799,303		57,858,589	
28	12/31/2030	6,777,555	2,371,282	10,117,164		19,266,001		60,699,474	
29	12/31/2031	5,914,736	2,200,915	9,617,048		17,732,699		63,710,812	
30	12/31/2032	5,051,917	2,030,548	9,116,931		16,199,397		66,902,830	
31	12/31/2033	4,189,098	1,860,181	8,616,815		14,666,095		70,286,369	
32	12/31/2034	3,326,280	1,689,814	8,116,699		13,132,793		73,872,921	
33	12/31/2035	2,463,461	1,519,447	7,616,582		11,599,490		77,674,665	

	J	K
1		
2		
3		Total
4		
5	Total	
6	O&M	
7	84,800	565,309
8	127,832	5,226,561
9	198,348	11,770,141
10	294,577	19,774,813
11	24,380,117	44,706,579
12	26,056,704	46,601,539
13	27,290,868	46,978,148
14	28,578,421	47,430,316
15	29,956,559	48,060,812
16	31,612,174	49,736,723
17	33,594,783	52,503,105
18	35,566,861	54,663,605
19	38,056,766	56,504,274
20	39,920,041	57,334,363
21	41,890,306	58,271,442
22	44,529,811	61,960,218
23	47,885,193	68,415,929
24	51,399,644	74,860,342
25	54,431,913	78,297,820
26	55,178,509	77,511,114
27	57,858,589	78,657,892
28	60,699,474	79,965,474
29	63,710,812	81,443,510
30	66,902,830	83,102,226
31	70,286,369	84,952,464
32	73,872,921	87,005,713
33	77,674,665	89,274,156

	A	B	C	D	E	F	G	H	I
34	12/31/2036	1,600,642	1,349,080	7,116,466		10,066,188		81,704,515	
35	12/31/2037	737,823	1,178,714	6,616,349		8,532,886		85,976,155	
36	2009 PVRR	153,383,226	14,945,173	24,389,184		192,717,582		354,316,774	
37									
38	Cubic Yards	9,542,500	6,072,500	9,542,500		25,157,500		25,157,500	
39									

	J	K
34	81,704,515	91,770,703
35	85,976,155	94,509,041
36	354,316,774	547,034,356
37		
38	25,157,500	25,157,500
39	$/CY (PVRR)	$ 21.74

	A	B	C	D	E	F	G	H
1		**Annual Revenue Requirements - Ghent Landfill - KU Project 30 with Beneficial Reuse -S**						
2								
3		Capital						O
4								
5								
6		Phase 1	Phase 2	Phase 3	Final Cap	Total	Non-Power	Power
7	12/31/2009	480,509	-	-		480,509		84,800
8	12/31/2010	3,553,056	-	-		3,553,056		127,832
9	12/31/2011	7,177,211	-	-		7,177,211		198,348
10	12/31/2012	13,654,069	-	-		13,654,069		294,577
11	12/31/2013	14,678,389	-	-		14,678,389		24,380,117
12	12/31/2014	15,152,993	-	-		15,152,993		26,056,704
13	12/31/2015	14,539,006	-	-		14,539,006		27,290,868
14	12/31/2016	13,883,815	-	-		13,883,815		28,578,421
15	12/31/2017	13,255,915	-	-		13,255,915		29,956,559
16	12/31/2018	12,653,016	-	-		12,653,016		31,612,174
17	12/31/2019	12,016,402	-	-		12,016,402		33,594,783
18	12/31/2020	11,379,788	-	-		11,379,788		35,566,861
19	12/31/2021	10,743,173	-	-		10,743,173		38,056,766
20	12/31/2022	10,106,559	-	-		10,106,559		39,920,041
21	12/31/2023	9,469,945	-	-		9,469,945		41,890,306
22	12/31/2024	8,833,331	-	-		8,833,331		44,529,811
23	12/31/2025	8,196,717	-	-		8,196,717		47,885,193
24	12/31/2026	7,560,103	52,720	-		7,612,823		51,399,644
25	12/31/2027	6,923,489	156,032	-		7,079,520		54,431,913
26	12/31/2028	6,286,875	993,170	-		7,280,044		55,178,509
27	12/31/2029	5,650,260	2,639,761	-		8,290,021		57,858,589
28	12/31/2030	5,013,646	3,691,001	-		8,704,647		60,699,474
29	12/31/2031	4,377,032	3,904,584	-		8,281,616		63,710,812
30	12/31/2032	3,740,418	3,734,217	-		7,474,635		66,902,830
31	12/31/2033	3,103,804	3,563,850	-		6,667,654		70,286,369
32	12/31/2034	2,467,190	3,393,483	-		5,860,673		73,872,921
33	12/31/2035	1,830,576	3,223,116	-		5,053,692		77,674,665

	I	J	K
1	**terling Ventures Mine**		
2			
3	&M		Total
4			
5	Beneficial	Total	
6	Reuse	O&M	
7	-	84,800	565,309
8	-	127,832	3,680,888
9	-	198,348	7,375,559
10	-	294,577	13,948,646
11	(489,556)	23,890,561	38,568,950
12	(495,467)	25,561,237	40,714,230
13	(436,289)	26,854,579	41,393,584
14	(387,511)	28,190,911	42,074,725
15	(348,918)	29,607,640	42,863,556
16	(501,636)	31,110,538	43,763,554
17	(873,325)	32,721,458	44,737,860
18	(1,101,031)	34,465,830	45,845,618
19	(1,114,736)	36,942,030	47,685,203
20	(1,025,754)	38,894,287	49,000,846
21	(931,433)	40,958,872	50,428,818
22	(1,382,478)	43,147,333	51,980,664
23	(2,392,499)	45,492,694	53,689,411
24	(3,382,211)	48,017,432	55,630,256
25	(3,728,255)	50,703,658	57,783,179
26	(3,378,832)	51,799,676	59,079,720
27	(2,798,637)	55,059,952	63,349,973
28	(2,349,913)	58,349,561	67,054,208
29	(2,101,930)	61,608,882	69,890,498
30	(1,942,577)	64,960,253	72,434,888
31	(1,773,662)	68,512,707	75,180,361
32	(1,594,613)	72,278,307	78,138,980
33	(1,404,821)	76,269,844	81,323,536

	A	B	C	D	E	F	G	H
34	12/31/2036	1,193,961	3,052,749	-		4,246,711		81,704,515
35	12/31/2037	557,347	2,882,383	-		3,439,730		85,976,155
36	2009 PVRR	111,212,472	5,355,077	-		116,567,550		354,316,774
37								
38	Cubic Yards	17,350,000	7,807,500			25,157,500		25,157,500
39								
40				Option 30 with				
41	CASE		Option 30	Benefical Reuse				
42	PVRR							
43	Capital		$ 192,717,582	$ 116,567,550				
44	O&M		354,316,774	343,867,798				
45	Total		$ 547,034,356	$ 460,435,348				
46	Delta to Least Cost		**$ 86,599,008**	Least Cost				
47								
48	Unit Cost (2009 PVRR $/CY)		$ 21.74	$ 18.30				

	I	J	K
34	(1,203,641)	80,500,873	84,747,584
35	(990,391)	84,985,764	88,425,494
36	(10,448,976)	343,867,798	460,435,348
37			
38		25,157,500	25,157,500
39		$/CY (PVRR)	$ 18.30
40			
41			
42			
43			
44			
45			
46			
47			
48			

	A	B	C	D	E	F	G	H
1	NOTE-This Table	**Annual Revenue Requirements - Ghent Landfill - KU Project 30 with Beneficial Reuse -Sterling Venture**						
2	Requires $9.00							
3	Price Inserted	Capital					O	
4	into cell D16 of							
5	PVRR Analysis							
6		Phase 1	Phase 2	Phase 3	Final Cap	Total	Non-Power	Power
7	12/31/2009	480,509	-	-		480,509		84,800
8	12/31/2010	3,553,056	-	-		3,553,056		127,832
9	12/31/2011	7,177,211	-	-		7,177,211		198,348
10	12/31/2012	13,654,069	-	-		13,654,069		294,577
11	12/31/2013	14,678,389	-	-		14,678,389		24,380,117
12	12/31/2014	15,152,993	-	-		15,152,993		26,056,704
13	12/31/2015	14,539,006	-	-		14,539,006		27,290,868
14	12/31/2016	13,883,815	-	-		13,883,815		28,578,421
15	12/31/2017	13,255,915	-	-		13,255,915		29,956,559
16	12/31/2018	12,653,016	-	-		12,653,016		31,612,174
17	12/31/2019	12,016,402	-	-		12,016,402		33,594,783
18	12/31/2020	11,379,788	-	-		11,379,788		35,566,861
19	12/31/2021	10,743,173	-	-		10,743,173		38,056,766
20	12/31/2022	10,106,559	-	-		10,106,559		39,920,041
21	12/31/2023	9,469,945	-	-		9,469,945		41,890,306
22	12/31/2024	8,833,331	-	-		8,833,331		44,529,811
23	12/31/2025	8,196,717	-	-		8,196,717		47,885,193
24	12/31/2026	7,560,103	52,720	-		7,612,823		51,399,644
25	12/31/2027	6,923,489	156,032	-		7,079,520		54,431,913
26	12/31/2028	6,286,875	993,170	-		7,280,044		55,178,509
27	12/31/2029	5,650,260	2,639,761	-		8,290,021		57,858,589
28	12/31/2030	5,013,646	3,691,001	-		8,704,647		60,699,474
29	12/31/2031	4,377,032	3,904,584	-		8,281,616		63,710,812
30	12/31/2032	3,740,418	3,734,217	-		7,474,635		66,902,830
31	12/31/2033	3,103,804	3,563,850	-		6,667,654		70,286,369
32	12/31/2034	2,467,190	3,393,483	-		5,860,673		73,872,921
33	12/31/2035	1,830,576	3,223,116	-		5,053,692		77,674,665

	I	J	K
1	**s Mine With Scrubber Stone Backhaul**		
2			
3	&M		Total
4			
5	Beneficial	Total	
6	Reuse	O&M	
7	-	84,800	565,309
8	-	127,832	3,680,888
9	-	198,348	7,375,559
10	-	294,577	13,948,646
11	(489,556)	23,890,561	38,568,950
12	(495,467)	25,561,237	40,714,230
13	(436,289)	26,854,579	41,393,584
14	(387,511)	28,190,911	42,074,725
15	(348,918)	29,607,640	42,863,556
16	(501,636)	31,110,538	43,763,554
17	(873,325)	32,721,458	44,737,860
18	(1,101,031)	34,465,830	45,845,618
19	(1,114,736)	36,942,030	47,685,203
20	(1,025,754)	38,894,287	49,000,846
21	(931,433)	40,958,872	50,428,818
22	(1,382,478)	43,147,333	51,980,664
23	(2,392,499)	45,492,694	53,689,411
24	(3,382,211)	48,017,432	55,630,256
25	(3,728,255)	50,703,658	57,783,179
26	(3,378,832)	51,799,676	59,079,720
27	(2,798,637)	55,059,952	63,349,973
28	(2,349,913)	58,349,561	67,054,208
29	(2,101,930)	61,608,882	69,890,498
30	(1,942,577)	64,960,253	72,434,888
31	(1,773,662)	68,512,707	75,180,361
32	(1,594,613)	72,278,307	78,138,980
33	(1,404,821)	76,269,844	81,323,536

	A	B	C	D	E	F	G	H
34	12/31/2036	1,193,961	3,052,749	-		4,246,711		81,704,515
35	12/31/2037	557,347	2,882,383	-		3,439,730		85,976,155
36	2009 PVRR	111,212,472	5,355,077	-		116,567,550		354,316,774
37								
38	Cubic Yards	17,350,000	7,807,500			25,157,500		25,157,500
39								
40				Option 30 with				
41	CASE		Option 30	Benefical Reuse				
42	PVRR							
43	Capital		$ 192,717,582	$ 116,567,550				
44	O&M		354,316,774	343,867,798				
45	Total		$ 547,034,356	$ 460,435,348				
46	Delta to Least Cost		**$ 86,599,008**	Least Cost				
47								
48	Unit Cost (2009 PVRR $/CY)		$ 21.74	$ 18.30				

	I	J	K
34	(1,203,641)	80,500,873	84,747,584
35	(990,391)	84,985,764	88,425,494
36	(10,448,976)	343,867,798	460,435,348
37			
38		25,157,500	25,157,500
39		$/CY (PVRR)	$ 18.30
40			
41			
42			
43			
44			
45			
46			
47			
48			

	A	B	C	D	E	F	G	H	I
1		Dry	Gypsum	Gypsum	Operation and	Phase II	Phase III	Total	Hauling
2		Gypsum	Fines	Dewatering	Maintenance	Construction	Construction	Capital Cost	Gypsum to
3		Handling	Project	Facility	Dry Gypsum				Landfill
4		System		Earthwork	Handling				
5					System				
6									
7	12/31/2010	$ 7,790,000	$ 6,300,000	$ -	$ -	$ -	$ -	$ 14,090,000	$ -
8	12/31/2011	$ 15,960,000	$ 6,300,000	$ 371,000	$ -	$ -	$ -	$ 22,631,000	$ -
9	12/30/2012	$ 13,050,000	$ -	$ -	$ -	$ -	$ -	$ 13,050,000	$ -
10	12/30/2013	$ -	$ -	$ -	$ 682,495	$ -	$ -	$ 682,495	$ 8,887,032
11	12/30/2014	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 9,420,254
12	12/30/2015	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 9,985,469
13	12/29/2016	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 10,584,598
14	12/29/2017	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 11,219,674
15	12/29/2018	$ -	$ -	$ -	$ -	$ 40,000,000	$ -	$ 40,000,000	$ 11,892,854
16	12/29/2019	$ -	$ -	$ -	$ -	$ 20,000,000	$ -	$ 20,000,000	$ 12,606,426
17	12/28/2020	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 13,362,811
18	12/28/2021	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 14,164,580
19	12/28/2022	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 15,014,455
20	12/28/2023	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 15,915,322
21	12/27/2024	$ -	$ -	$ -	$ -	$ -	$ 40,000,000	$ 40,000,000	$ 16,870,241
22	12/27/2025	$ -	$ -	$ -	$ -	$ -	$ 40,000,000	$ 40,000,000	$ 17,882,456
23	12/27/2026	$ -	$ -	$ -	$ -	$ -	$ 20,000,000	$ 20,000,000	$ 18,955,403
24	12/27/2027	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 20,092,727
25	12/26/2028	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 21,298,291
26	12/26/2029	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 22,576,188
27	12/26/2030	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 23,930,760
28	12/26/2031	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 25,366,605
29	12/25/2032	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 26,888,602
30	12/25/2033	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 28,501,918
31	12/25/2034	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 30,212,033
32	12/25/2035	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 32,024,755

	J	K	L	M	N	O
1	Total	Discount	Haul	Phase III		Discount
2	Cost Gypsum	Rate	Gypsum	Construction		Rate
3	to Ghent	6.70%	to Sterling			6.70%
4	Landfill					
5						
6		PVRR				PVRR
7	$ 14,090,000	$ 289,828,563	$ -	$ -	$ -	$ 252,258,836
8	$ 22,631,000		$ -	$ -	$ -	
9	$ 13,050,000		$ -	$ -	$ -	
10	$ 9,569,527		$ 11,236,000	$ -	$ 11,236,000	
11	$ 9,420,254		$ 11,910,160	$ -	$ 11,910,160	
12	$ 9,985,469		$ 12,624,770	$ -	$ 12,624,770	
13	$ 10,584,598		$ 13,382,256	$ -	$ 13,382,256	
14	$ 11,219,674		$ 14,185,191	$ -	$ 14,185,191	
15	$ 51,892,854		$ 15,036,303	$ -	$ 15,036,303	
16	$ 32,606,426		$ 15,938,481	$ -	$ 15,938,481	
17	$ 13,362,811		$ 16,894,790	$ -	$ 16,894,790	
18	$ 14,164,580		$ 17,908,477	$ -	$ 17,908,477	
19	$ 15,014,455		$ 18,982,986	$ -	$ 18,982,986	
20	$ 15,915,322		$ 20,121,965	$ -	$ 20,121,965	
21	$ 56,870,241		$ 21,329,283	$ 40,000,000	$ 61,329,283	
22	$ 57,882,456		$ 22,609,040	$ 40,000,000	$ 62,609,040	
23	$ 38,955,403		$ 23,965,582	$ 20,000,000	$ 43,965,582	
24	$ 20,092,727		$ 25,403,517	$ -	$ 25,403,517	
25	$ 21,298,291		$ 26,927,728	$ -	$ 26,927,728	
26	$ 22,576,188		$ 28,543,392	$ -	$ 28,543,392	
27	$ 23,930,760		$ 30,255,995	$ -	$ 30,255,995	
28	$ 25,366,605		$ 32,071,355	$ -	$ 32,071,355	
29	$ 26,888,602		$ 33,995,636	$ -	$ 33,995,636	
30	$ 28,501,918		$ 36,035,374	$ -	$ 36,035,374	
31	$ 30,212,033		$ 38,197,497	$ -	$ 38,197,497	
32	$ 32,024,755		$ 40,489,346	$ -	$ 40,489,346	

	A	B	C	D	E	F	G	H	I
33	12/24/2036	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 33,946,240
34	12/24/2037	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 35,983,014
35		$ 36,800,000	$ 12,600,000	$ 371,000	$ 682,495	$ 60,000,000	$ 100,000,000	$ 210,453,495	$ 487,582,709
36					$ 50,453,495		$ 160,000,000		

	J	K	L	M	N	O
33	$ 33,946,240		$ 42,918,707	$ -	$ 42,918,707	
34	$ 35,983,014		$ 45,493,830	$ -	$ 45,493,830	
35	$ 698,036,204		$ 616,457,657	$ 100,000,000	$ 716,457,657	
36						

	A	B	C	D
1	PHASE 1 ONLY			
2	Gypsum Disposal at Sterling Materials			
3				
4	Revenue Requirement			
5	Eligible Plant			
6	Less Gypsum Plant Requirements/Phase Delays			
7	Revised Eligible Plant			
8	Less Accumulated Depreciation			
9	Less Deferred Tax Balance			
10	Environmental Compliance Rate Base			
11	Rate of Return			
12		Assumed	Tons (1.155)	1,000,000
13		86.7500%	Cubic yards	867,500
14	Operating Expenses			
15	less Gypsum to On-site Landfill			
16	Gypsum to Sterling			**$ 10.50**
17	Net Operating			
18	Annual Depreciation			
19	Annual Property Tax Expense			
20	Total OE			
21				
22	Total E(m) Gypsum to Sterling			
23	Total E(m) - Project 30 (See below)			
24				
25	**Difference**		**PVRR**	**7.81%**
26	Date			
27				
28	Revenue Requirments Summary			
29	2009 Amended Plan			
30	Project 30		Ghent Landfill Phase I	
31	See Exhibit B			
32				

	E	F	G	H	I	J	K	L	M
1									
2		2009	2010	2011	2012	2013	2014	2015	2016
3									
4									
5		$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 202,578,976
6		$ -	$ (14,090,000)	$ (40,060,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)
7		$ 4,321,671	$ 32,388,846	$ 65,425,803	$ 124,467,356	$ 138,023,918	$ 148,831,953	$ 149,468,976	$ 149,468,976
8						$ (3,690,414)	$ (7,842,826)	$ (12,013,010)	$ (16,183,194)
9						$ (528,683)	$ (2,857,926)	$ (4,921,730)	$ (6,724,117)
10		$ 4,321,671	$ 32,388,846	$ 65,425,803	$ 124,467,356	$ 133,804,821	$ 138,131,202	$ 132,534,236	$ 126,561,665
11		11.1%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
12		$ 480,509	$ 3,553,056	$ 7,177,211	$ 13,654,069	$ 14,678,389	$ 15,152,993	$ 14,539,006	$ 13,883,815
13									
14		$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244
15						$ (9,569,527)	$ (10,143,699)	$ (10,752,321)	$ (11,397,460)
16						$ 10,500,000	$ 11,130,000	$ 11,797,800	$ 12,505,668
17		$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,933,781	$ 21,129,808	$ 22,397,596	$ 23,741,452
18						$ 3,690,414	$ 4,152,411	$ 4,170,184	$ 4,170,185
19			$ 6,483	$ 69,718	$ 158,229	$ 266,366	$ 279,017	$ 286,798	$ 279,274
20		$ 84,800	$ 127,832	$ 198,348	$ 294,577	$ 23,890,561	$ 25,561,237	$ 26,854,579	$ 28,190,911
21									
22	$ 452,873,199	$ 565,309	$ 3,680,888	$ 7,375,559	$ 13,948,646	$ 38,568,950	$ 40,714,230	$ 41,393,584	$ 42,074,725
23	$ 493,914,773	$ 565,309	$ 5,226,225	$ 11,769,378	$ 19,773,528	$ 44,705,239	$ 46,600,208	$ 46,976,843	$ 47,458,553
24									
25	**$ (41,041,573)**	$ -	$ (1,545,337)	$ (4,393,819)	$ (5,824,882)	$ (6,136,289)	$ (5,885,978)	$ (5,583,259)	$ (5,383,828)
26		12/31/2009	12/31/2010	12/31/2011	12/31/2012	12/31/2013	12/31/2014	12/31/2015	12/31/2016
27									
28									
29									
30									
31		2009	2010	2011	2012	2013	2014	2015	2016
32									**Start Phase II**

	N	O	P	Q	R	S	T	U
1								
2	2017	2018	2019	2020	2021	2022	2023	2024
3								
4								
5	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976
6	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)
7	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976
8	$ (20,353,378)	$ (24,523,563)	$ (28,693,747)	$ (32,863,931)	$ (37,034,115)	$ (41,204,299)	$ (45,374,483)	$ (49,544,667)
9	$ (8,277,719)	$ (9,603,427)	$ (11,236,471)	$ (12,869,515)	$ (14,502,559)	$ (16,135,603)	$ (17,768,648)	$ (19,401,692)
10	$ 120,837,879	$ 115,341,986	$ 109,538,758	$ 103,735,530	$ 97,932,302	$ 92,129,073	$ 86,325,845	$ 80,522,617
11	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
12	$ 13,255,915	$ 12,653,016	$ 12,016,402	$ 11,379,788	$ 10,743,173	$ 10,106,559	$ 9,469,945	$ 8,833,331
13				$ 27,051	$ 661,940			
14	$ 23,991,239	$ 25,430,713	$ 26,956,556	**$ 28,601,000**	**$ 30,979,000**	$ 32,837,740	$ 34,808,004	$ 36,896,485
15	$ (12,081,307)	$ (12,806,186)	$ (13,574,557)	$ (14,389,030)	$ (15,252,372)	$ (16,167,515)	$ (17,137,565)	$ (18,165,819)
16	$ 13,256,008	$ 14,051,369	$ 14,894,451	$ 15,788,118	$ 16,735,405	$ 17,739,529	$ 18,803,901	$ 19,932,135
17	$ 25,165,940	$ 26,675,896	$ 28,276,450	$ 30,000,087	$ 32,462,033	$ 34,409,755	$ 36,474,340	$ 38,662,800
18	$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,170,184
19	$ 270,848	$ 262,514	$ 262,514	$ 262,514	$ 262,514	$ 262,514	$ 262,514	$ 262,514
20	$ 29,606,972	$ 31,108,594	$ 32,709,148	$ 34,432,785	$ 36,894,731	$ 38,842,453	$ 40,907,038	$ 43,095,498
21								
22	$ 42,862,887	$ 43,761,610	$ 44,725,549	$ 45,812,573	$ 47,637,904	$ 48,949,012	$ 50,376,983	$ 51,928,829
23	$ 48,044,547	$ 48,653,648	$ 49,139,584	$ 49,921,210	$ 51,436,391	$ 52,432,312	$ 53,539,758	$ 54,765,419
24								
25	$ (5,181,660)	$ (4,892,038)	$ (4,414,035)	$ (4,108,637)	$ (3,798,487)	$ (3,483,300)	$ (3,162,775)	$ (2,836,590)
26	12/31/2017	12/31/2018	12/31/2019	12/31/2020	12/31/2021	12/31/2022	12/31/2023	12/31/2024
27								
28								
29								
30								
31	2017	2018	2019	2020	2021	2022	2023	2024
32								**Start Phase III**

	V	W	X	Y	Z	AA	AB	AC
1								
2	2025	2026	2027	2028	2029	2030	2031	2032
3		**Start Phase II**						
4								
5	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976
6	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)
7	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976
8	$ (53,714,851)	$ (57,885,036)	$ (62,055,220)	$ (66,225,404)	$ (70,395,588)	$ (74,565,772)	$ (78,735,956)	$ (82,906,140)
9	$ (21,034,736)	$ (22,667,780)	$ (24,300,824)	$ (25,933,868)	$ (27,566,912)	$ (29,199,956)	$ (30,833,000)	$ (32,466,045)
10	$ 74,719,389	$ 68,916,161	$ 63,112,932	$ 57,309,704	$ 51,506,476	$ 45,703,248	$ 39,900,019	$ 34,096,791
11	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
12	$ 8,196,717	$ 7,560,103	$ 6,923,489	$ 6,286,875	$ 5,650,260	$ 5,013,646	$ 4,377,032	$ 3,740,418
13				$ (1,912,962)				
14	$ 39,110,274	$ 41,456,890	$ 43,944,304	**$ 44,668,000**	$ 47,348,080	$ 50,188,965	$ 53,200,303	$ 56,392,321
15	$ (19,255,768)	$ (20,411,115)	$ (21,635,781)	$ (22,933,928)	$ (24,309,964)	$ (25,768,562)	$ (27,314,676)	$ (28,953,556)
16	$ 21,128,063	$ 22,395,747	$ 23,739,492	$ 25,163,861	$ 26,673,693	$ 28,274,114	$ 29,970,561	$ 31,768,795
17	$ 40,982,568	$ 43,441,522	$ 46,048,014	$ 46,897,933	$ 49,711,809	$ 52,694,517	$ 55,856,188	$ 59,207,559
18	$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,170,184
19	$ 262,514	$ 262,514	$ 262,514	$ 262,514	$ 262,514	$ 262,514	$ 262,514	$ 262,514
20	$ 45,415,266	$ 47,874,220	$ 50,480,712	$ 51,330,631	$ 54,144,507	$ 57,127,215	$ 60,288,886	$ 63,640,258
21								
22	$ 53,611,983	$ 55,434,323	$ 57,404,200	$ 57,617,505	$ 59,794,767	$ 62,140,862	$ 64,665,918	$ 67,380,676
23	$ 56,116,389	$ 57,600,187	$ 59,224,782	$ 59,085,659	$ 60,902,921	$ 62,880,987	$ 65,029,506	$ 67,358,705
24								
25	$ (2,504,406)	$ (2,165,864)	$ (1,820,581)	$ (1,468,154)	$ (1,108,153)	$ (740,125)	$ (363,587)	$ 21,971
26	12/31/2025	12/31/2026	12/31/2027	12/31/2028	12/31/2029	12/31/2030	12/31/2031	12/31/2032
27								
28								
29								
30								
31	2025	2026	2027	2028	2029	2030	2031	2032
32								

	AD	AE	AF	AG	AH	AI
1						
2	2033	2034	2035	2036	2037	
3						
4						
5	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	
6	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	
7	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976	
8	$ (87,076,324)	$ (91,246,509)	$ (95,416,693)	$ (99,586,877)	$ (103,757,061)	
9	$ (34,099,089)	$ (35,732,133)	$ (37,365,177)	$ (38,998,221)	$ (40,631,265)	
10	$ 28,293,563	$ 22,490,335	$ 16,687,107	$ 10,883,878	$ 5,080,650	
11	10.97%	10.97%	10.97%	10.97%	10.97%	
12	$ 3,103,804	$ 2,467,190	$ 1,830,576	$ 1,193,961	$ 557,347	$ 228,478,594
13						
14	$ 59,775,860	$ 63,362,412	$ 67,164,156	$ 71,194,006	$ 75,465,646	
15	$ (30,690,769)	$ (32,532,216)	$ (34,484,149)	$ (36,553,198)	$ (38,746,389)	
16	$ 33,674,922	$ 35,695,418	$ 37,837,143	$ 40,107,371	$ 42,513,814	
17	$ 62,760,013	$ 66,525,614	$ 70,517,151	$ 74,748,180	$ 79,233,071	
18	$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,170,184	
19	$ 262,514	$ 262,514	$ 262,514	$ 262,514	$ 262,514	
20	$ 67,192,711	$ 70,958,312	$ 74,949,849	$ 79,180,878	$ 83,665,769	
21						
22	$ 70,296,515	$ 73,425,502	$ 76,780,424	$ 80,374,839	$ 84,223,116	$ 1,427,527,870
23	$ 69,879,426	$ 72,603,158	$ 75,542,084	$ 78,709,115	$ 82,117,936	$ 1,498,059,007
24						
25	$ 417,089	$ 822,343	$ 1,238,340	$ 1,665,724	$ 2,105,179	**$ (70,531,137)**
26	12/31/2033	12/31/2034	12/31/2035	12/31/2036	12/31/2037	
27						$ (70,531,137)
28						
29						
30						
31	2033	2034	2035	2036	2037	
32						

	A	B	C	D
33	Revenue Requirement			
34	Eligible Plant			
35	Less Gypsum Plant Requirements/Phase Delays			
36	Revised Eligible Plant			
37	Less Accumulated Depreciation			
38	Less Deferred Tax Balance			
39	Environmental Compliance Rate Base			
40	Rate of Return			
41				
42				
43	Operating Expenses			
44	less Gypsum to On-site Landfill			
45	Gypsum to Sterling			
46	Net Operating			
47	Annual Depreciation			
48	Annual Property Tax Expense			
49	Total OE			
50				
51	Total E(m) Gypsum to On-site Landfill as Calculated			
52	Total E(m) Gypsum to On-site Landfill per KU			
53				
54	Calculation Check Difference			
55				
56				
57	Site E/F	Hauling cost of Ash 2.25 mile round trip		
58		Haul Road Maintenance		
59	Total			
60	Reduce by 50% for Site M			
61	**Difference**		**PVRR**	**7.81%**

	E	F	G	H	I	J	K	L	M
33									
34		$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 202,578,976
35		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
36		$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 202,578,976
37						$ (5,110,443)	$ (10,744,623)	$ (16,396,576)	$ (22,048,530)
38						$ (732,114)	$ (3,915,341)	$ (6,717,677)	$ (9,161,164)
39		$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 185,291,361	$ 187,281,989	$ 179,464,723	$ 171,369,282
40		11.1%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
41		$ 480,509	$ 5,098,729	$ 11,571,793	$ 19,480,236	$ 20,326,462	$ 20,544,834	$ 19,687,280	$ 18,799,210
42									
43		$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244
44						$ -	$ -	$ -	$ -
45						$ -	$ -	$ -	$ -
46		$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244
47						$ 5,110,443	$ 5,634,180	$ 5,651,953	$ 5,651,954
48			$ 6,483	$ 69,718	$ 158,229	$ 266,366	$ 279,017	$ 286,798	$ 279,274
49		$ 84,800	$ 127,832	$ 198,348	$ 294,577	$ 24,380,117	$ 26,056,704	$ 27,290,868	$ 28,564,471
50									
51		$ 565,309	$ 5,226,561	$ 11,770,141	$ 19,774,813	$ 44,706,579	$ 46,601,539	$ 46,978,148	$ 47,363,682
52		$ 565,309	$ 5,226,225	$ 11,769,378	$ 19,773,528	$ 44,705,239	$ 46,600,208	$ 46,976,843	$ 47,458,553
53									
54		$ -	$ 336	$ 763	$ 1,285	$ 1,340	$ 1,331	$ 1,305	$ (94,871)
55									
56									
57						$ 2,822,723	$ 2,992,086	$ 3,171,612	$ 3,361,908
58						$ 53,529	$ 56,741	$ 60,145	$ 63,754
59						$ 2,876,252	$ 3,048,827	$ 3,231,757	$ 3,425,662
60		$ -	$ -	$ -	$ -	$ 1,438,126	$ 1,524,414	$ 1,615,878	$ 1,712,831
61	**$ (21,865,903)**								

	N	O	P	Q	R	S	T	U
33								
34	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976
35	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
36	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976
37	$ (27,700,483)	$ (33,352,436)	$ (39,004,389)	$ (44,656,342)	$ (50,308,295)	$ (55,960,248)	$ (61,612,201)	$ (67,264,154)
38	$ (11,265,786)	$ (13,060,814)	$ (15,274,119)	$ (17,487,423)	$ (19,700,728)	$ (21,914,033)	$ (24,127,338)	$ (26,340,643)
39	$ 163,612,707	$ 156,165,726	$ 148,300,469	$ 140,435,211	$ 132,569,953	$ 124,704,695	$ 116,839,437	$ 108,974,180
40	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
41	$ 17,948,314	$ 17,131,380	$ 16,268,561	$ 15,405,743	$ 14,542,924	$ 13,680,105	$ 12,817,286	$ 11,954,467
42				$ 27,051	$ 661,940			
43	$ 23,991,239	$ 25,430,713	$ 26,956,556	**$ 28,601,000**	**$ 30,979,000**	$ 32,837,740	$ 34,808,004	$ 36,896,485
44	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
45	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
46	$ 23,991,239	$ 25,430,713	$ 26,956,556	$ 28,601,000	$ 30,979,000	$ 32,837,740	$ 34,808,004	$ 36,896,485
47	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953
48	$ 270,848	$ 262,514	$ 262,514	$ 262,514	$ 262,514	$ 262,514	$ 262,514	$ 262,514
49	$ 29,914,040	$ 31,345,180	$ 32,871,023	$ 34,515,467	$ 36,893,467	$ 38,752,207	$ 40,722,471	$ 42,810,952
50								
51	$ 47,862,354	$ 48,476,560	$ 49,139,584	$ 49,921,210	$ 51,436,391	$ 52,432,312	$ 53,539,758	$ 54,765,419
52	$ 48,044,547	$ 48,653,648						
53								
54	$ (182,193)	$ (177,088)						
55								
56								
57	$ 3,563,623	$ 3,777,440	$ 4,004,087	$ 4,244,332	$ 4,498,992	$ 4,768,931	$ 5,055,067	$ 5,358,371
58	$ 67,579	$ 71,634	$ 75,932	$ 80,488	$ 85,317	$ 90,436	$ 95,862	$ 101,614
59	$ 3,631,202	$ 3,849,074	$ 4,080,018	$ 4,324,820	$ 4,584,309	$ 4,859,367	$ 5,150,929	$ 5,459,985
60	$ 1,815,601	$ 1,924,537	$ 2,040,009	$ 2,162,410	$ 2,292,154	$ 2,429,684	$ 2,575,465	$ 2,729,993
61								

	V	W	X	Y	Z	AA	AB	AC
33								
34	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976
35	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
36	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976
37	$ (72,916,107)	$ (78,568,060)	$ (84,220,013)	$ (89,871,966)	$ (95,523,919)	$ (101,175,872)	$ (106,827,825)	$ (112,479,778)
38	$ (28,553,947)	$ (30,767,252)	$ (32,980,557)	$ (35,193,862)	$ (37,407,167)	$ (39,620,471)	$ (41,833,776)	$ (44,047,081)
39	$ 101,108,922	$ 93,243,664	$ 85,378,406	$ 77,513,148	$ 69,647,890	$ 61,782,633	$ 53,917,375	$ 46,052,117
40	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
41	$ 11,091,649	$ 10,228,830	$ 9,366,011	$ 8,503,192	$ 7,640,374	$ 6,777,555	$ 5,914,736	$ 5,051,917
42				$ (1,912,962)				
43	$ 39,110,274	$ 41,456,890	$ 43,944,304	**$ 44,668,000**	$ 47,348,080	$ 50,188,965	$ 53,200,303	$ 56,392,321
44	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
45	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
46	$ 39,110,274	$ 41,456,890	$ 43,944,304	$ 44,668,000	$ 47,348,080	$ 50,188,965	$ 53,200,303	$ 56,392,321
47	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953
48	$ 262,514	$ 262,514	$ 262,514	$ 262,514	$ 262,514	$ 262,514	$ 262,514	$ 262,514
49	$ 45,024,741	$ 47,371,357	$ 49,858,771	$ 50,582,467	$ 53,262,547	$ 56,103,432	$ 59,114,770	$ 62,306,788
50								
51	$ 56,116,389	$ 57,600,187	$ 59,224,782	$ 59,085,659	$ 60,902,921	$ 62,880,987	$ 65,029,506	$ 67,358,705
52								
53								
54								
55								
56								
57	$ 5,679,873	$ 6,020,666	$ 6,381,906	$ 6,764,820	$ 7,170,709	$ 7,600,952	$ 8,057,009	$ 8,540,429
58	$ 107,711	$ 114,174	$ 121,024	$ 128,285	$ 135,982	$ 144,141	$ 152,790	$ 161,957
59	$ 5,787,584	$ 6,134,839	$ 6,502,930	$ 6,893,105	$ 7,306,692	$ 7,745,093	$ 8,209,799	$ 8,702,387
60	$ 2,893,792	$ 3,067,420	$ 3,251,465	$ 3,446,553	$ 3,653,346	$ 3,872,547	$ 4,104,899	$ 4,351,193
61								

	AD	AE	AF	AG	AH	AI
33						$ -
34	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	
35	$ -	$ -	$ -	$ -	$ -	
36	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	
37	$ (118,131,731)	$ (123,783,684)	$ (129,435,637)	$ (135,087,590)	$ (140,739,543)	
38	$ (46,260,386)	$ (48,473,691)	$ (50,686,995)	$ (52,900,300)	$ (55,113,605)	
39	$ 38,186,859	$ 30,321,601	$ 22,456,344	$ 14,591,086	$ 6,725,828	
40	10.97%	10.97%	10.97%	10.97%	10.97%	
41	$ 4,189,098	$ 3,326,280	$ 2,463,461	$ 1,600,642	$ 737,823	$ 312,629,403
42						
43	$ 59,775,860	$ 63,362,412	$ 67,164,156	$ 71,194,006	$ 75,465,646	
44	$ -	$ -	$ -	$ -	$ -	
45	$ -	$ -	$ -	$ -	$ -	
46	$ 59,775,860	$ 63,362,412	$ 67,164,156	$ 71,194,006	$ 75,465,646	
47	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953	
48	$ 262,514	$ 262,514	$ 262,514	$ 262,514	$ 262,514	
49	$ 65,690,327	$ 69,276,879	$ 73,078,623	$ 77,108,473	$ 81,380,113	
50						
51	$ 69,879,426	$ 72,603,158	$ 75,542,084	$ 78,709,115	$ 82,117,936	
52						
53						
54						
55						
56						
57	$ 9,052,855	$ 9,596,026	$ 10,171,788	$ 10,782,095	$ 11,429,021	
58	$ 171,675	$ 181,975	$ 192,894	$ 204,467	$ 216,735	
59	$ 9,224,530	$ 9,778,002	$ 10,364,682	$ 10,986,563	$ 11,645,756	
60	$ 4,612,265	$ 4,889,001	$ 5,182,341	$ 5,493,281	$ 5,822,878	
61						

Cell: D16
Comment: John Walters:
Insert $9.00 for Limestone Backhaul calculation

	A	B	C	D
1	Revenue Requirments Summary			
2	Gypsum Disposal at Sterling Materials			
3				
4	Revenue Requirement			
5	Eligible Plant			
6	Less Gypsum Plant Requirements			
7	Revised Eligible Plant			
8	Less Accumulated Depreciation			
9	Less Deferred Tax Balance			
10	Environmental Compliance Rate Base			
11	Rate of Return			
12		Assumed	Tons (1.155)	1,000,000
13		86.7500%	Cubic yards	867,500
14	Operating Expenses			
15	less Gypsum to On-site Landfill			
16	Gypsum to Sterling			**$ 10.50**
17	Net Operating			
18	Annual Depreciation			
19	Annual Property Tax Expense			
20	Total OE			
21				
22	Total E(m) Gypsum to Sterling			
23	Total E(m) - Project 30 (See below)			
24				
25	**Difference**		**PVRR**	**7.81%**
26	Date			
27				
28	Revenue Requirments Summary			
29	2009 Amended Plan			
30	Project 30		Ghent Landfill Phase I	
31	See Exhibit B			
32				
33	Revenue Requirement			

	E	F	G	H	I	J	K	L
1								
2		2009	2010	2011	2012	2013	2014	2015
3								
4								
5		$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976
6		$ -	$ (14,090,000)	$ (40,060,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)
7		$ 4,321,671	$ 32,388,846	$ 65,425,803	$ 124,467,356	$ 138,023,918	$ 148,831,953	$ 149,468,976
8						$ (3,690,414)	$ (7,842,826)	$ (12,013,010)
9						$ (528,683)	$ (2,857,926)	$ (4,921,730)
10		$ 4,321,671	$ 32,388,846	$ 65,425,803	$ 124,467,356	$ 133,804,821	$ 138,131,202	$ 132,534,236
11		11.1%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
12		$ 480,509	$ 3,553,056	$ 7,177,211	$ 13,654,069	$ 14,678,389	$ 15,152,993	$ 14,539,006
13								
14		$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117
15						$ (9,569,527)	$ (10,143,699)	$ (10,752,321)
16						$ 10,500,000	$ 11,130,000	$ 11,797,800
17		$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,933,781	$ 21,129,808	$ 22,397,596
18						$ 3,690,414	$ 4,152,411	$ 4,170,184
19			$ 6,483	$ 69,718	$ 158,229	$ 266,366	$ 279,017	$ 286,798
20		$ 84,800	$ 127,832	$ 198,348	$ 294,577	$ 23,890,561	$ 25,561,237	$ 26,854,579
21								
22	$ 460,107,063	$ 565,309	$ 3,680,888	$ 7,375,559	$ 13,948,646	$ 38,568,950	$ 40,714,230	$ 41,393,584
23	$ 513,750,912	$ 565,309	$ 5,226,225	$ 11,769,378	$ 19,773,528	$ 44,705,239	$ 46,600,208	$ 46,976,843
24								
25	**$ (53,643,850)**	$ -	$ (1,545,337)	$ (4,393,819)	$ (5,824,882)	$ (6,136,289)	$ (5,885,978)	$ (5,583,259)
26		12/31/2009	12/31/2010	12/31/2011	12/31/2012	12/31/2013	12/31/2014	12/31/2015
27								
28								
29								
30								
31		2009	2010	2011	2012	2013	2014	2015
32								
33								

	M	N	O	P	Q	R	S	T
1								
2	2016	2017	2018	2019	2020	2021	2022	2023
3								
4								
5	$ 203,078,976	$ 204,078,976	$ 212,078,976	$ 228,078,976	$ 239,078,976	$ 242,578,976	$ 242,578,976	$ 242,578,976
6	$ (53,610,000)	$ (54,610,000)	$ (62,610,000)	$ (78,610,000)	$ (89,610,000)	$ (93,110,000)	$ (93,110,000)	$ (93,110,000)
7	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976
8	$ (16,183,194)	$ (20,353,378)	$ (24,523,563)	$ (28,693,747)	$ (32,863,931)	$ (37,034,115)	$ (41,204,299)	$ (45,374,483)
9	$ (6,724,117)	$ (8,277,719)	$ (9,603,427)	$ (11,236,471)	$ (12,869,515)	$ (14,502,559)	$ (16,135,603)	$ (17,768,648)
10	$ 126,561,665	$ 120,837,879	$ 115,341,986	$ 109,538,758	$ 103,735,530	$ 97,932,302	$ 92,129,073	$ 86,325,845
11	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
12	$ 13,883,815	$ 13,255,915	$ 12,653,016	$ 12,016,402	$ 11,379,788	$ 10,743,173	$ 10,106,559	$ 9,469,945
13					$ 27,051	$ 661,940		
14	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,556	**$ 28,601,000**	**$ 30,979,000**	$ 32,837,740	$ 34,808,004
15	$ (11,397,460)	$ (12,081,307)	$ (12,806,186)	$ (13,574,557)	$ (14,389,030)	$ (15,252,372)	$ (16,167,515)	$ (17,137,565)
16	$ 12,505,668	$ 13,256,008	$ 14,051,369	$ 14,894,451	$ 15,788,118	$ 16,735,405	$ 17,739,529	$ 18,803,901
17	$ 23,741,452	$ 25,165,940	$ 26,675,896	$ 28,276,450	$ 30,000,087	$ 32,462,033	$ 34,409,755	$ 36,474,340
18	$ 4,170,185	$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,170,184
19	$ 279,274	$ 271,517	$ 264,458	$ 274,825	$ 295,558	$ 309,813	$ 314,348	$ 314,348
20	$ 28,190,911	$ 29,607,640	$ 31,110,538	$ 32,721,458	$ 34,465,830	$ 36,942,030	$ 38,894,287	$ 40,958,872
21								
22	$ 42,074,725	$ 42,863,556	$ 43,763,554	$ 44,737,860	$ 45,845,618	$ 47,685,203	$ 49,000,846	$ 50,428,818
23	$ 47,458,553	$ 48,044,547	$ 48,653,648	$ 52,503,105	$ 54,663,605	$ 56,504,274	$ 57,334,363	$ 58,271,442
24								
25	$ (5,383,828)	$ (5,180,991)	$ (4,890,094)	$ (7,765,245)	$ (8,817,987)	$ (8,819,070)	$ (8,333,517)	$ (7,842,625)
26	12/31/2016	12/31/2017	12/31/2018	12/31/2019	12/31/2020	12/31/2021	12/31/2022	12/31/2023
27								
28								
29								
30								
31	2016	2017	2018	2019	2020	2021	2022	2023
32	**Start Phase II**							
33	$ 500,000	$ 1,000,000	$ 8,000,000	$ 16,000,000	$ 11,000,000	$ 3,500,000		

	U	V	W	X	Y	Z	AA	AB
1								
2	2024	2025	2026	2027	2028	2029	2030	2031
3			**Start Phase II**					
4			$ 500,000	$ 1,000,000	$ 8,000,000	$ 16,000,000	$ 11,000,000	$ 3,500,000
5	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976
6	$ (93,110,000)	$ (93,110,000)	$ (92,610,000)	$ (91,610,000)	$ (83,610,000)	$ (67,610,000)	$ (56,610,000)	$ (53,110,000)
7	$ 149,468,976	$ 149,468,976	$ 149,968,976	$ 150,968,976	$ 158,968,976	$ 174,968,976	$ 185,968,976	$ 189,468,976
8	$ (49,544,667)	$ (53,714,851)	$ (57,898,986)	$ (62,111,020)	$ (66,546,254)	$ (71,427,888)	$ (76,616,422)	$ (81,902,606)
9	$ (19,401,692)	$ (21,034,736)	$ (22,673,243)	$ (24,322,675)	$ (26,059,513)	$ (27,971,161)	$ (30,002,991)	$ (32,073,060)
10	$ 80,522,617	$ 74,719,389	$ 69,396,748	$ 64,535,281	$ 66,363,209	$ 75,569,927	$ 79,349,563	$ 75,493,310
11	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
12	$ 8,833,331	$ 8,196,717	$ 7,612,823	$ 7,079,520	$ 7,280,044	$ 8,290,021	$ 8,704,647	$ 8,281,616
13					$ (1,912,962)			
14	$ 36,896,485	$ 39,110,274	$ 41,456,890	$ 43,944,304	**$ 44,668,000**	$ 47,348,080	$ 50,188,965	$ 53,200,303
15	$ (18,165,819)	$ (19,255,768)	$ (20,411,115)	$ (21,635,781)	$ (22,933,928)	$ (24,309,964)	$ (25,768,562)	$ (27,314,676)
16	$ 19,932,135	$ 21,128,063	$ 22,395,747	$ 23,739,492	$ 25,163,861	$ 26,673,693	$ 28,274,114	$ 29,970,561
17	$ 38,662,800	$ 40,982,568	$ 43,441,522	$ 46,048,014	$ 46,897,933	$ 49,711,809	$ 52,694,517	$ 55,856,188
18	$ 4,170,184	$ 4,170,184	$ 4,184,134	$ 4,212,034	$ 4,435,234	$ 4,881,634	$ 5,188,534	$ 5,286,184
19	$ 314,348	$ 314,348	$ 314,348	$ 314,348	$ 314,348	$ 314,348	$ 314,348	$ 314,348
20	$ 43,147,333	$ 45,467,101	$ 47,940,005	$ 50,574,396	$ 51,647,515	$ 54,907,791	$ 58,197,400	$ 61,456,721
21								
22	$ 51,980,664	$ 53,663,818	$ 55,552,828	$ 57,653,917	$ 58,927,559	$ 63,197,812	$ 66,902,047	$ 69,738,337
23	$ 59,326,737	$ 60,507,340	$ 61,820,771	$ 63,274,999	$ 62,965,509	$ 64,612,404	$ 66,420,103	$ 68,398,255
24								
25	$ (7,346,073)	$ (6,843,522)	$ (6,267,943)	$ (5,621,082)	$ (4,037,950)	$ (1,414,592)	$ 481,944	$ 1,340,082
26	12/31/2024	12/31/2025	12/31/2026	12/31/2027	12/31/2028	12/31/2029	12/31/2030	12/31/2031
27								
28								
29								
30								
31	2024	2025	2026	2027	2028	2029	2030	2031
32	**Start Phase III**							
33								

	AC	AD	AE	AF	AG	AH	AI
1							
2	2032	2033	2034	2035	2036	2037	
3							
4							
5	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	
6	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	
7	$ 189,468,976	$ 189,468,976	$ 189,468,976	$ 189,468,976	$ 189,468,976	$ 189,468,976	
8	$ (87,188,790)	$ (92,474,974)	$ (97,761,158)	$ (103,047,342)	$ (108,333,526)	$ (113,619,710)	
9	$ (34,143,130)	$ (36,213,200)	$ (38,283,269)	$ (40,353,339)	$ (42,423,409)	$ (44,493,479)	
10	$ 68,137,056	$ 60,780,802	$ 53,424,548	$ 46,068,295	$ 38,712,041	$ 31,355,787	
11	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	
12	$ 7,474,635	$ 6,667,654	$ 5,860,673	$ 5,053,692	$ 4,246,711	$ 3,439,730	$ 259,765,660
13							
14	$ 56,392,321	$ 59,775,860	$ 63,362,412	$ 67,164,156	$ 71,194,006	$ 75,465,646	
15	$ (28,953,556)	$ (30,690,769)	$ (32,532,216)	$ (34,484,149)	$ (36,553,198)	$ (38,746,389)	
16	$ 31,768,795	$ 33,674,922	$ 35,695,418	$ 37,837,143	$ 40,107,371	$ 42,513,814	
17	$ 59,207,559	$ 62,760,013	$ 66,525,614	$ 70,517,151	$ 74,748,180	$ 79,233,071	
18	$ 5,286,184	$ 5,286,184	$ 5,286,184	$ 5,286,184	$ 5,286,184	$ 5,286,184	
19	$ 314,348	$ 314,348	$ 314,348	$ 314,348	$ 314,348	$ 314,348	
20	$ 64,808,092	$ 68,360,546	$ 72,126,146	$ 76,117,683	$ 80,348,712	$ 84,833,603	
21							
22	$ 72,282,727	$ 75,028,199	$ 77,986,819	$ 81,171,375	$ 84,595,423	$ 88,273,333	$ 1,469,602,202
23	$ 70,557,087	$ 72,907,441	$ 75,460,807	$ 78,229,366	$ 81,226,030	$ 84,464,484	$ 1,569,221,600
24							
25	$ 1,725,639	$ 2,120,758	$ 2,526,012	$ 2,942,009	$ 3,369,393	$ 3,808,848	**$ (99,619,398)**
26	12/31/2032	12/31/2033	12/31/2034	12/31/2035	12/31/2036	12/31/2037	
27							$ (99,619,398)
28							
29							
30							
31	2032	2033	2034	2035	2036	2037	
32							
33							$ -

	A	B	C	D
34	Eligible Plant			
35	Less Gypsum Plant Requirements			
36	Revised Eligible Plant			
37	Less Accumulated Depreciation			
38	Less Deferred Tax Balance			
39	Environmental Compliance Rate Base			
40	Rate of Return			
41				
42				
43	Operating Expenses			
44	less Gypsum to On-site Landfill			
45	Gypsum to Sterling			
46	Net Operating			
47	Annual Depreciation			
48	Annual Property Tax Expense			
49	Total OE			
50				
51	Total E(m) Gypsum to On-site Landfill as Calculated			
52	Total E(m) Gypsum to On-site Landfill per KU			
53				
54	Calculation Check Difference			
55				
56				
57	Site E/F	Hauling cost of Ash 2.25 mile round trip		
58		Haul Road Maintenance		
59	Total			
60	Reduce by 50% for Site M			
61	**Difference**		**PVRR**	**7.81%**

	E	F	G	H	I	J	K	L
34		$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976
35		$ -	$ -	$ -	$ -	$ -	$ -	$ -
36		$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976
37						$ (5,110,443)	$ (10,744,623)	$ (16,396,576)
38						$ (732,114)	$ (3,915,341)	$ (6,717,677)
39		$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 185,291,361	$ 187,281,989	$ 179,464,723
40		11.1%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
41		$ 480,509	$ 5,098,729	$ 11,571,793	$ 19,480,236	$ 20,326,462	$ 20,544,834	$ 19,687,280
42								
43		$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117
44						$ -	$ -	$ -
45						$ -	$ -	$ -
46		$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117
47						$ 5,110,443	$ 5,634,180	$ 5,651,953
48			$ 6,483	$ 69,718	$ 158,229	$ 266,366	$ 279,017	$ 286,798
49		$ 84,800	$ 127,832	$ 198,348	$ 294,577	$ 24,380,117	$ 26,056,704	$ 27,290,868
50								
51		$ 565,309	$ 5,226,561	$ 11,770,141	$ 19,774,813	$ 44,706,579	$ 46,601,539	$ 46,978,148
52		$ 565,309	$ 5,226,225	$ 11,769,378	$ 19,773,528	$ 44,705,239	$ 46,600,208	$ 46,976,843
53								
54		$ -	$ 336	$ 763	$ 1,285	$ 1,340	$ 1,331	$ 1,305
55								
56								
57						$ 2,822,723	$ 2,992,086	$ 3,171,612
58						$ 53,529	$ 56,741	$ 60,145
59						$ 2,876,252	$ 3,048,827	$ 3,231,757
60		$ -	$ -	$ -	$ -	$ 1,438,126	$ 1,524,414	$ 1,615,878
61	**$ (21,865,903)**							

	M	N	O	P	Q	R	S	T
34	$ 203,078,976	$ 204,078,976	$ 212,078,976	$ 228,078,976	$ 239,078,976	$ 242,578,976	$ 242,578,976	$ 242,578,976
35	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
36	$ 203,078,976	$ 204,078,976	$ 212,078,976	$ 228,078,976	$ 239,078,976	$ 242,578,976	$ 242,578,976	$ 242,578,976
37	$ (22,062,480)	$ (27,756,283)	$ (33,673,286)	$ (40,036,689)	$ (46,706,992)	$ (53,474,945)	$ (60,242,897)	$ (67,010,850)
38	$ (9,166,960)	$ (11,288,480)	$ (13,186,459)	$ (15,678,367)	$ (18,290,458)	$ (20,940,788)	$ (23,591,119)	$ (26,241,449)
39	$ 171,849,536	$ 165,034,213	$ 165,219,232	$ 172,363,920	$ 174,081,526	$ 168,163,243	$ 158,744,960	$ 149,326,677
40	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
41	$ 18,851,894	$ 18,104,253	$ 18,124,550	$ 18,908,322	$ 19,096,743	$ 18,447,508	$ 17,414,322	$ 16,381,136
42					$ 27,051	$ 661,940		
43	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,556	**$ 28,601,000**	**$ 30,979,000**	$ 32,837,740	$ 34,808,004
44	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
45	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
46	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,556	$ 28,601,000	$ 30,979,000	$ 32,837,740	$ 34,808,004
47	$ 5,665,904	$ 5,693,803	$ 5,917,003	$ 6,363,403	$ 6,670,303	$ 6,767,953	$ 6,767,953	$ 6,767,953
48	$ 279,274	$ 271,517	$ 264,458	$ 274,825	$ 295,558	$ 309,813	$ 314,348	$ 314,348
49	$ 28,578,421	$ 29,956,559	$ 31,612,174	$ 33,594,783	$ 35,566,861	$ 38,056,766	$ 39,920,041	$ 41,890,306
50								
51	$ 47,430,316	$ 48,060,812	$ 49,736,723	$ 52,503,105	$ 54,663,605	$ 56,504,274	$ 57,334,363	$ 58,271,442
52	$ 47,458,553	$ 48,044,547	$ 48,653,648					
53								
54	$ (28,237)	$ 16,265	$ 1,083,075					
55								
56								
57	$ 3,361,908	$ 3,563,623	$ 3,777,440	$ 4,004,087	$ 4,244,332	$ 4,498,992	$ 4,768,931	$ 5,055,067
58	$ 63,754	$ 67,579	$ 71,634	$ 75,932	$ 80,488	$ 85,317	$ 90,436	$ 95,862
59	$ 3,425,662	$ 3,631,202	$ 3,849,074	$ 4,080,018	$ 4,324,820	$ 4,584,309	$ 4,859,367	$ 5,150,929
60	$ 1,712,831	$ 1,815,601	$ 1,924,537	$ 2,040,009	$ 2,162,410	$ 2,292,154	$ 2,429,684	$ 2,575,465
61								

	U	V	W	X	Y	Z	AA	AB
34	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976
35	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
36	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976
37	$ (73,778,803)	$ (80,546,756)	$ (87,314,709)	$ (94,082,662)	$ (100,850,615)	$ (107,618,568)	$ (114,386,521)	$ (121,154,474)
38	$ (28,891,779)	$ (31,542,110)	$ (34,192,440)	$ (36,842,770)	$ (39,493,101)	$ (42,143,431)	$ (44,793,762)	$ (47,444,092)
39	$ 139,908,393	$ 130,490,110	$ 121,071,827	$ 111,653,543	$ 102,235,260	$ 92,816,977	$ 83,398,693	$ 73,980,410
40	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
41	$ 15,347,951	$ 14,314,765	$ 13,281,579	$ 12,248,394	$ 11,215,208	$ 10,182,022	$ 9,148,837	$ 8,115,651
42					$ (1,912,962)			
43	$ 36,896,485	$ 39,110,274	$ 41,456,890	$ 43,944,304	**$ 44,668,000**	$ 47,348,080	$ 50,188,965	$ 53,200,303
44	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
45	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
46	$ 36,896,485	$ 39,110,274	$ 41,456,890	$ 43,944,304	$ 44,668,000	$ 47,348,080	$ 50,188,965	$ 53,200,303
47	$ 6,767,953	$ 6,767,953	$ 6,767,953	$ 6,767,953	$ 6,767,953	$ 6,767,953	$ 6,767,953	$ 6,767,953
48	$ 314,348	$ 314,348	$ 314,348	$ 314,348	$ 314,348	$ 314,348	$ 314,348	$ 314,348
49	$ 43,978,786	$ 46,192,575	$ 48,539,191	$ 51,026,605	$ 51,750,301	$ 54,430,381	$ 57,271,266	$ 60,282,604
50								
51	$ 59,326,737	$ 60,507,340	$ 61,820,771	$ 63,274,999	$ 62,965,509	$ 64,612,404	$ 66,420,103	$ 68,398,255
52								
53								
54								
55								
56								
57	$ 5,358,371	$ 5,679,873	$ 6,020,666	$ 6,381,906	$ 6,764,820	$ 7,170,709	$ 7,600,952	$ 8,057,009
58	$ 101,614	$ 107,711	$ 114,174	$ 121,024	$ 128,285	$ 135,982	$ 144,141	$ 152,790
59	$ 5,459,985	$ 5,787,584	$ 6,134,839	$ 6,502,930	$ 6,893,105	$ 7,306,692	$ 7,745,093	$ 8,209,799
60	$ 2,729,993	$ 2,893,792	$ 3,067,420	$ 3,251,465	$ 3,446,553	$ 3,653,346	$ 3,872,547	$ 4,104,899
61								

	AC	AD	AE	AF	AG	AH	AI
34	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	
35	$ -	$ -	$ -	$ -	$ -	$ -	
36	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	
37	$ (127,922,427)	$ (134,690,380)	$ (141,458,333)	$ (148,226,286)	$ (154,994,239)	$ (161,762,192)	
38	$ (50,094,422)	$ (52,744,753)	$ (55,395,083)	$ (58,045,413)	$ (60,695,744)	$ (63,346,074)	
39	$ 64,562,127	$ 55,143,844	$ 45,725,560	$ 36,307,277	$ 26,888,994	$ 17,470,710	
40	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	
41	$ 7,082,465	$ 6,049,280	$ 5,016,094	$ 3,982,908	$ 2,949,723	$ 1,916,537	$ 363,369,986
42							
43	$ 56,392,321	$ 59,775,860	$ 63,362,412	$ 67,164,156	$ 71,194,006	$ 75,465,646	
44	$ -	$ -	$ -	$ -	$ -	$ -	
45	$ -	$ -	$ -	$ -	$ -	$ -	
46	$ 56,392,321	$ 59,775,860	$ 63,362,412	$ 67,164,156	$ 71,194,006	$ 75,465,646	
47	$ 6,767,953	$ 6,767,953	$ 6,767,953	$ 6,767,953	$ 6,767,953	$ 6,767,953	
48	$ 314,348	$ 314,348	$ 314,348	$ 314,348	$ 314,348	$ 314,348	
49	$ 63,474,622	$ 66,858,161	$ 70,444,713	$ 74,246,458	$ 78,276,307	$ 82,547,947	
50							
51	$ 70,557,087	$ 72,907,441	$ 75,460,807	$ 78,229,366	$ 81,226,030	$ 84,464,484	
52							
53							
54							
55							
56							
57	$ 8,540,429	$ 9,052,855	$ 9,596,026	$ 10,171,788	$ 10,782,095	$ 11,429,021	
58	$ 161,957	$ 171,675	$ 181,975	$ 192,894	$ 204,467	$ 216,735	
59	$ 8,702,387	$ 9,224,530	$ 9,778,002	$ 10,364,682	$ 10,986,563	$ 11,645,756	
60	$ 4,351,193	$ 4,612,265	$ 4,889,001	$ 5,182,341	$ 5,493,281	$ 5,822,878	
61							

Cell: D16
Comment: John Walters:
Insert $9.00 for Limestone Backhaul calculation

	A	B	C	D	E	F
1	Revenue Requirments Summary					
2	2009 Amended Plan - Offsite Gypsum Disposal					
3						
4	Project 30		Ghent Landfill Phase I			2009
5						
6	Revenue Requirement					
7	Eligible Plant					$ 4,321,671
8	Less Gypsum Plant					$ -
9	Revised Eligible Plant					$ 4,321,671
10	Less Accumulated Depreciation					
11	Less Deferred Tax Balance					
12	Environmental Compliance Rate Base					$ 4,321,671
13	Rate of Return					11.1%
14						$ 480,509
15						
16	Operating Expenses					$ 84,800
17	less Gypsum to On-site Landfill					
18	Gypsum to Sterling (800,000 tons)					
19	Net Operating					$ 84,800
20	Annual Depreciation					
21	Annual Property Tax Expense					
22	Total OE					$ 84,800
23						
24	Total E(m) Gypsum to Sterling					$ 565,309
25	Total E(m) Gypsum to On-site Landfill					$ 565,309
26						
27	Difference					$ -

	G	H	I	J	K	L	M	N
1								
2								
3								
4	2010	2011	2012	2013	2014	2015	2016	2017
5								
6								
7	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 203,254,220	$ 203,969,979
8	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
9	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 203,254,220	$ 203,969,979
10				$ (5,110,443)	$ (10,744,623)	$ (16,396,576)	$ (22,067,369)	$ (27,758,131)
11				$ (732,114)	$ (3,915,341)	$ (6,717,677)	$ (9,168,992)	$ (11,289,232)
12	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 185,291,361	$ 187,281,989	$ 179,464,723	$ 172,017,859	$ 164,922,616
13	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
14	$ 5,098,729	$ 11,571,793	$ 19,480,236	$ 20,326,462	$ 20,544,834	$ 19,687,280	$ 18,870,359	$ 18,092,011
15								
16	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244	$ 23,991,239
17				$ -	$ -	$ -	$ -	$ -
18				$ -	$ -	$ -	$ -	$ -
19	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244	$ 23,991,239
20				$ 5,110,443	$ 5,634,180	$ 5,651,953	$ 5,670,793	$ 5,690,762
21	$ 6,483	$ 69,718	$ 158,229	$ 266,366	$ 279,017	$ 286,798	$ 279,274	$ 271,751
22	$ 127,832	$ 198,348	$ 294,577	$ 24,380,117	$ 26,056,704	$ 27,290,868	$ 28,583,311	$ 29,953,752
23								
24	$ 5,226,561	$ 11,770,141	$ 19,774,813	$ 44,706,579	$ 46,601,539	$ 46,978,148	$ 47,453,670	$ 48,045,763
25	$ 5,226,225	$ 11,769,378	$ 19,773,528	$ 44,705,239	$ 46,600,208	$ 46,976,843	$ 47,458,553	$ 48,044,547
26								
27	$ 336	$ 763	$ 1,285	$ 1,340	$ 1,331	$ 1,305	$ (4,883)	$ 1,216

	O	P
1		
2		
3		
4	2018	
5		
6		
7	$ 203,969,979	
8	$ -	
9	$ 203,969,979	
10	$ (33,448,893)	
11	$ (13,098,586)	
12	$ 157,422,500	
13	10.97%	
14	$ 17,269,248	
15		
16	$ 25,430,713	
17	$ -	
18	$ -	
19	$ 25,430,713	
20	$ 5,690,762	
21	$ 264,317	
22	$ 31,385,792	
23		
24	$ 48,655,040	
25	$ 48,653,648	
26		
27	$ 1,392	$ 4,084

Kentucky Energy and Environment Cabinet
Department for Environmental Protection
Division of Waste Management

PERMIT

Facility:
Sterling Ventures LLC
100 Sierra Dr
Verona, KY 41092

Permittee:
Sterling Materials
376 South Broadway
Lexington, KY 40508

Agency Interest:
Sterling Ventures LLC
100 Sierra Dr
Verona, KY 41092

The Division has issued the permit under the provisions of KRS Chapter 224 and regulations promulgated pursuant thereto. This permitted activity or activities are subject to all conditions and operating limitations contained herein. Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses or approvals required by this Division or other state and local agencies.

No deviation from the plans and specifications submitted with your application or any condition specified herein is allowed, unless authorized in writing from the Division. Violation of the terms and conditions specified herein may render this permit null and void. All rights of inspection by representatives of the Division are reserved. Conformance with all applicable Waste Management Regulations is the responsibility of the permittee.

Agency Interest ID #: **1461**

Solid Waste Permit #: **SW00800023**

County: **Gallatin**

Permitted Activities:

Subject Item	Activity	Type	Status
ACTV001	Beneficial Reuse-Special Waste-RPBR/00800023	Registered Permit by Rule	Active

Permit Number: SW00800023 Agency Interest ID: 1461

PERMIT

First Operational Permit Effective Date: 11/19/2010

Permit Effective Date: 11/19/2010

Permit Expiration Date: Life of facility

Permit issued: 11/19/2010

R. D. Gruzesky

Ronald D. Gruzesky, P.E.
Manager, Solid Waste Branch

Permit Conditions:

Subject Items

ACTV0001 - Beneficial Reuse-Special Waste-RPBR

Standard Requirements:

1. General: The owner or operator of a special waste facility shall comply with KRS Chapter 224 and 401 KAR Chapters 30, 40 and 45 for the operation of special waste facilities. [KRS 224.50-760]

2. General: For operation of the special waste beneficial reuse that is not otherwise specified in 401 KAR 45:060, the owner or operator shall comply with KRS Chapter 224.50-760, 401 KAR 45:070 and the approved permit application(s). [401 KAR 45:070]

Variances, Alternate Specifications and Special Conditions:

1. Operation: The owner or operator is approved to beneficially reuse flue gas desulfurization gypsum produced by the KU Ghent Power Station in mined out sections of the Sterling Mine on the first level, in the Tyrone Limestone. [401 KAR 45:070 Section 3]

2. Operation: The owner or operator shall submit a revised registration prior to beneficially reusing sources or types of wastes other than FGD sludge from the KU Ghent power station, beneficially reusing FGD gypsum in areas other than the first level of the mine, changing the method of processing waste, adding new processes, changing the operator, or changing ownership. [401 KAR 45:070 Section 4]

PERMIT

3. Operation: The owner or operator shall comply with the Environmental Performance Standards of 401 KAR 30:031. [401 KAR 30:031]

4. Operation: The owner or operator is approved to beneficially reuse up to 800,000 tons per year of FGD gypsum. [401 KAR 45:070 Section 3]

5. Operation: The owner or operator shall ensure that no water, except that necessary for dust suppression, shall enter the beneficial reuse area. [401 KAR 45:140 Section 2]

6. Operation: The owner or operator shall ensure that the FGD gypsum is stored only in areas with no standing water. [401 KAR 45:140 Section 2]

County Sources - The owner or operator may accept waste as authorized by the cabinet pursuant to KRS 224 and/or 401 KAR Chapter 47 from the following counties:

Kentucky: Carroll

Approved Applications - The owner or operator shall comply with applicable statutes and regulations and the following approved applications:

1. 11-19-2010 - ARP20100001 - Registered Permit-by-Rule Beneficial Reuse

From: Pfeiffer, Caryl(/O=LGE/OU=LOUISVILLE/CN=RECIPIENTS/CN=E012383)
To: Straight, Scott; Joyce, Jeff; Tapp Sr., Kenny (Electric); Puckett, Paul
CC: Dotson, Mike; Gilbert, Bill G.; Smith, Timothy (Fuels)
BCC:
Subject: FW: Ghent Station Gypsum Disposal
Sent: 11/07/2011 10:58:46 AM -0500 (EST)
Attachments:

FYI

From: John Walters [mailto:johnwalters@sterlingventures.com]
Sent: Monday, November 07, 2011 10:24 AM
To: Pfeiffer, Caryl
Subject: RE: Ghent Station Gypsum Disposal

Thanks for the update.
John

From: Pfeiffer, Caryl [mailto:Caryl.Pfeiffer@lge-ku.com]
Sent: Monday, November 07, 2011 10:22 AM
To: John Walters
Cc: Alex Boone
Subject: RE: Ghent Station Gypsum Disposal

John
I saw Scott on Friday and he said he had received your updated proposal and that his group was coordinating the analysis of the information with our Energy Planning, Forecasting and Analysis people and plant personnel. He said he would get back with you all once the internal analysis was completed.
Caryl

From: John Walters [mailto:johnwalters@sterlingventures.com]
Sent: Friday, November 04, 2011 11:15 AM
To: Pfeiffer, Caryl
Cc: Alex Boone
Subject: Ghent Station Gypsum Disposal

Caryl
Last Thursday, I sent Scott Straight and John Voyles an updated PVRR analysis comparing the alternative of using of Sterling's underground mine for Ghent's gypsum disposal to the current plan to place excess gypsum in the new landfill. The update was based on additional information from more recent PSC filings, and that update, along with the new assumptions, is attached. Since I first provided our PVRR savings analysis on September 17, I have not been able to talk to anyone about the proposal. As I indicated in my cover letter in September, I necessarily had to make assumptions in calculating the PVRR saving - most importantly the projected cost and timing of phases 2 and 3 of the new landfill. Am I correct in assuming that a lack of any response to a potential $80,000,000 PVRR saving is the result of my analysis and/or assumption being grossly incorrect? If that is the case, could someone let me know what errors I made in my analysis? I was hoping to provide an alternative that substantially delayed the need to build phase 2, and eliminated entirely the need for phase 3.
Also, I have not received any response to our updated proposal, as requested by Tim Smith, to use our mine for disposal of 1,500,000 tons of gypsum from Ghent's stacking pond. Is Ghent still looking at a short term plan to dispose of gypsum in the stacking pond? I understand that Tim Smith has been transferred to Trimble County. If there is still a need with respect to Ghent's gypsum stacking pond, who should we be talking to?
Any help would be appreciated.
John

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From: John Walters(johnwalters@sterlingventures.com)
To: Smith, Timothy (Fuels); Joyce, Jeff; Pfeiffer, Caryl; Tapp Sr., Kenny (Electric); Gilbert, Bill G.; Dotson, Mike; Puckett, Paul
CC: Alex Boone
BCC:
Subject: Ghent Gyspum Disposal
Sent: 09/13/2011 05:15:04 PM -0400 (EDT)
Attachments: LGE - KU Sterling Materials.pdf;

Please see attached

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STERLING
VENTURES

September 13, 2011

Mr. Jeff Joyce
Mr. Timothy Smith
LG&E and KU-Ghent Station
9485 HWY 42 East
Ghent, KY 41045

Ms. Caryl Pfeiffer VIA E-mail
Mr. Kenny Tapp
Mr. Mike Dotson
Mr. Bill Gilbert
Mr. Paul Puckett
LG&E and KU
220 West Main Street
P.O. Box 32010
Louisville, KY 40202

Re: FGD Gypsum Disposal - Ghent Generating Station

Dear Ms. Pfeiffer and Gentlemen:

We have recently met with Tim Smith at Ghent Station to renew discussions concerning the possibility of Sterling Materials disposing of excess FGD Gypsum from the gypsum stacking facility at the Ghent Generating Station. We were unable to reach an agreement last year on gypsum disposal, presumably based on our proposed pricing.

Our pricing was in part based upon a requirement for a minimum tonnage of gypsum in order to cover the cost of Sterling having to install a gypsum access shaft to access our underground mine. The gypsum access shaft is preferable to trucking the gypsum underground, which we considered cost prohibitive. We proposed to Tim that if Ghent was interested in paying for the cost of the gypsum access shaft (which we estimated to be approximately $650,000) we would be willing to enter into an agreement that would give Ghent the right to dispose of its stacking pond gypsum in Sterling's mine. LGE/KU would be responsible for all loading and trucking fees. Sterling's charge in this scenario would be $5.50 per ton, subject to the terms of a final agreement. The $5.50 would be reduced by $1.00 for a period of 18 months in order to encourage early gypsum disposal, and allow you to recoup the cost of the gypsum access shaft.

As we discussed last year, Sterling is interested in not only handling the initial 1,500,000 tons of gypsum from the stacking facility, but also in receiving 100% of Ghent's excess FGD

gypsum for the life of the power plant. Attached is a comparative analysis of the PVRR cost difference between your current plan of placing all CCP's in a new landfill, and placing all gypsum at Sterling, with only ash going into your new landfill. The attached comparative analysis is based upon the capital construction cost and O&M cost you provided to the Kentucky Public Service Commission. Our attached analysis indicates that disposal of gypsum at Sterling could be the least cost PVRR alternative by at least $79,000,000, and possibly over $100,000,000 if scrubber limestone is purchased from Sterling and backhauled to the plant.

Obviously, we have necessarily made some assumptions in the attached comparative analysis, and we would like to meet with you again to discuss our analysis and assumptions, and to answer any questions you may have. We believe there are significant savings to you and your customers as reflected in the attached.

In addition, as we have previously discussed, we also have an underground limestone mine in Jessamine County near E.W. Brown. We met last week with Ron Gruzesky at The Kentucky Division of Solid Waste, and, based on that meeting, are planning to submit an application to permit our Jessamine County mine as a special waste landfill to receive all CCPs. Hopefully, there is the possibility of significant savings to you at Brown as well.

When you have a chance, give me or John Walters a call and we can discuss the above, and plan and how to move forward.

Sincerely,

Samuel A.B. Boone

GHENT STATION ALTERNATIVE FOR CCP/GYPSUM DISPOSAL

Background

Sterling Materials is an active underground limestone mine located in Verona, Kentucky, approximately 20 miles from Kentucky Utilities Company's Ghent Station. Sterling currently mines between 1,000,000 and 1,600,000 tons of limestone per year, and has been in operation since 2000.

In addition to producing limestone for the general aggregate construction market, Sterling also mines high calcium limestone for Mississippi Lime Company for use in Mississippi Lime's kiln located on Sterling's property. This high calcium limestone is also suitable for use as scrubber stone in Ghent's limestone FGD scrubber system.

In November 2010, Sterling obtained a Special Waste Permit from the Kentucky Department of Environmental Protection, Division of Waste Management allowing disposal of FGD gypsum in Sterling's mine.

KU has proposed building a new landfill at Ghent in three phases for an estimated total cost of $360,000,000 to handle the plant's three coal combustion by-products ("CCPs") through 2037[1]. KU forecasted the following wet storage CCP production volumes for Ghent Station (Cubic Yards):

Year	Fly Ash	Bottom Ash	Gypsum
2009	540,000	140,000	880,000
2010	550,000	150,000	1,090,000
2011	580,000	150,000	1,120,000
2012	550,000	150,000	1,060,000
2013	550,000	150,000	1,090,000

Source: Coal Combustion Byproduct Plan for Ghent Station dated June 2009 (the "Ghent CCP Plan" attached as Exhibit A)

Ghent's FGD gypsum is currently placed in a wet gypsum stacking pond. Ghent also has a contract to supply CertainTeed, Inc. with gypsum, and KU has estimated that CertainTeed will purchase approximately 222,000 cubic yards per year of gypsum from Ghent. As a result, Ghent will be required to continue diverting a portion of its gypsum production to the gypsum stacking pond.

The Ghent CCP Plan outlines KU's comparative analysis of the various alternatives to reach the least cost PVRR of disposing of Ghent's CCPs. One of the alternatives considered was off-site disposal at Valley View Landfill near Sulfer, Kentucky, approximately 25 miles from Ghent Station.[2] Disposal at Valley View was however dismissed because of the high cost of loading, hauling and landfill tipping fees.[3] Although, KU has redacted from public view the cost associated with the Valley View disposal alternative, based on

[1] Phase I cost thru 2018 of $203,969,979 as set forth in Revenue Requirement Summary for Project 30 – Ghent Landfill Phase I attached as Exhibit B. Total project capital cost estimated to be $360,000,000 per direct testimony of John Voyles before the Kentucky Public Service Commission in Case No. 2009-00197 attached as Exhibit C.
[2] Ghent CCP Plan, footnote 14, page 10.
[3] Supra at page 19.

other information contained in information provided to the KY PSC, it is estimated that the projected cost for disposal at Valley View in 2009 was approximately $29.65 per ton.[4]

Alternative Proposal for Gypsum Disposal at Sterling Materials' Mine

Sterling Materials is proposing that Ghent send all of its gypsum production (net of sales CertainTeed) to Sterling mine for disposal, with Ghent's ash being disposed of in either the new landfill as proposed on Site E/F, or in a new landfill located at Site M as considered by Case 14/28 in the Ghent CCP Plan (See page 18-19). Sterling estimates that the PVRR cost of this alternative is at least $79,000,000 less than KU's proposal for a new landfill at Site E/F, as set forth in Exhibit D.

Assumptions in Exhibit D analysis

1. Total price for loading, hauling and fees to Sterling Materials of $10.95 in 2013.
2. Net CCP production of approximately 868,000 cubic yards (1,090,000 – 222,000 to CertainTeed).
3. Cubic yards to ton conversion factor – cy x 1.155 (based on Trans Ash conversion assumption of 1.3 MCY equals 1.5 million tons as hauled - see page 10 of Ghent CCP Plan).
4. Reduce Phase I construction cost by $53,110,000[5] by continuing to place gypsum temporarily in existing gypsum stacking pond until shipment to Sterling.
   - Dry Gypsum Handling System $36,800,000
   - Gypsum Fines Project $12,600,000
   - Gypsum Dewatering Facility Earthwork $ 3,710,000
5. Phase III landfill construction cost eliminated. Phase II construction delayed from 2018 to 2030.
   - Phase I capacity – 14.7 MCY (See Ghent CCP Plan page 12)
   - Ash Production – 700,000 MCY (See Ghent CCP Plan page 7)
   - Phase I life until full – 21 years
6. Total Phase II and III construction costs - $156,030,021 (see Footnote 1)
   - Phase II construction cost - $80,000,000
   - Phase III construction cost - $76,030,021
7. Eliminate following Ghent Landfill Operating Expenses (See Ghent Landfill Operating Expenses - Phase I attached as Exhibit F)
   - Dry Gypsum Handling System
   - Hauling Gypsum to Landfill
     - Loading
     - Phase I-2.25 mile round trip
     - Landfilling Gypsum
8. Continue 2018 Annual Depreciation Rate of 2.7899% on Eligible Capital through 2037
9. Continue 2018 Property Tax Expense Rate of .1259% on Eligible Capital through 2037
10. Apply KU O&M Escalation Rate of 6% (See Ghent CCP Plan page 22)

[4] Total beneficial reuse cost of approximately $8,900,000 for 1,500,000 tons of Gypsum to Trans Ash, Inc. equals $5.93/ton (See Comprehensive Strategy for Management of Coal Combustion Byproducts – June 2009), which is almost 80% less than per unit volume basis than disposal at Valley View. (Ghent CCP Plan at pages 18 and 20).
[5] See Ghent Landfill Capital Expenditures Phase I attached as Exhibit E.

Purchase of Scrubber Stone from Sterling

Sterling Materials mines a high calcium seam of limestone in its 2nd and 3rd levels that will meet, and possibly exceed, Ghent's calcium specifications for scrubber stone. Based on general industry knowledge, without verification, it is believed that Ghent's current cost of scrubber stone FOB plant is approximately $8.00.

The proposed price of 10.50 for gypsum disposal at Sterling includes $4.50 per ton for transportation, based upon an assumed round trip turn of 1.5 hours, and $75.00 per hour to haul 25 tons.

Sterling is proposing to sell high calcium limestone to Ghent for $6.50 per ton and backhauling the stone to Ghent. If a $1.50 per ton trucking fee is assigned to the transportation of the limestone, Ghent will incur no additional cost for it scrubber stone. However, reducing the transportation component of the gypsum disposal cost by $1.50 reduces the proposed disposal cost from $10.50 to $9.00 per ton, and correspondingly increases the PVRR saving advantage from approximately $79,000,000 to over $100,000,000. (See Exhibit G).

Construct Ash Storage Pond at Site M

Although KU has redacted from public view information provided to the Kentucky PSC on the cost associated with an ash landfill on Site M, it would generally appear that using Site M as an ash landfill verses Site E/F would substantially reduce ash disposal cost and further increase the PVRR saving from disposing all of Ghent's gypsum at Sterling.

Site M is substantially closer to Ghent than Site E/F (Ghent CCP Plan page 12 and Exhibit H). The estimated cost of hauling fly and bottom ash to Site E/F is $2,822,723 in 2013, and the corresponding haul Road maintenance cost is $53,529. Even reducing those costs by a modest 50% for the haul to Site M verses site E/F would produce another $21,800,000 in PVRR savings compared to CCP disposal at Ghent under Project 30.

EXHIBIT A

Coal Combustion Byproduct Plan for Ghent Station For

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Subsidiaries Kentucky Utilities and Louisville Gas and Electric

June 2009

CONFIDENTIAL INFORMATION REDACTED

1. Executive Summary

Kentucky Utilities Company's ("KU") Ghent station ("Ghent") produces three primary coal combustion byproducts ("CCP"): bottom ash, fly ash and gypsum, which are currently stored in two ash treatment basins and two gypsum stacking areas. These storage areas are expected to reach full capacity in 2012, creating a need for additional CCP management solutions.

A variety of on-site and off-site options were considered to meet CCP management needs at Ghent. The most effective solutions were identified through a needs analysis and economic analysis based on engineering cost estimates.

To address the pre-2013 need for gypsum storage capacity, an opportunity to remove a quantity of gypsum to be beneficially reused as structural fill was identified. This reuse option is significantly lower cost than transporting CCP to an off-site landfill, which is the other short-term option.

For longer-term CCP storage needs, KU contracted an engineering consultant to develop potential on-site storage alternatives. Of multiple options considered, four options were selected for further economic evaluation. Based on cost estimates and qualitative factors for these alternatives, the most favorable option is a single on-site landfill to store both ash and gypsum.

The most cost effective and environmentally sound CCP management options for Ghent are:

- a proposal for beneficial reuse of 1.3 million cubic yards ("MCY") of CCP (approximately 75% of annual CCP production) by Trans Ash, Inc. in 2010-2012 (Present value of revenue requirement ("PVRR") of [redacted] million or [redacted] per cubic yard), and
- the construction of a new on-site landfill system to store both ash and gypsum production for 25 years to be in-service by 2013 (PVRR of [redacted] million or [redacted] per cubic yard).

In addition, KU will continue to pursue other beneficial reuse opportunities that result in lower disposal costs.

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2. Background

Kentucky Utilities Company's ("KU's") Ghent generating station ("Ghent") is located in Carroll and Gallatin Counties, Kentucky and is comprised of four coal-fired generating units for a total net station capacity of over 1,900 MW. The station produces three primary coal combustion byproducts ("CCP"): bottom ash, fly ash and gypsum. The Ghent station has four existing on-site storage facilities for CCP as follows:

- Ash Treatment Basin ("ATB") #1
- ATB #2
- North Gypsum Stack
- South Gypsum Stack

The ATBs are used to store bottom ash and fly ash which are byproducts of burning coal. ATB #1 is at maximum capacity[1] and ATB #2 is nearing maximum desired capacity. As of February 2009[2], ATB #2 can hold approximately an additional 2.5 MCY of ash. Ghent is forecast to produce approximately 0.7 MCY of ash annually, thus depleting the capacity in ATB #2 in 2012.[3]

Gypsum is produced by Ghent's flue gas desulfurization ("FGD") systems, which use limestone reagent to remove sulfur dioxide from flue gas. Until an additional repository can be developed, Ghent's gypsum is stacked on site. Based on the plant's expected generation, the existing capacity of the north and south gypsum stacks (collectively the "gypsum stack") is expected to be exhausted in 2012.[4]

Some gypsum is currently sold to a third party for beneficial reuse.[5] CertainTeed, Inc. ("CertainTeed") currently pays KU [redacted] per cubic yard for gypsum to be used as a raw material in the production of wallboard. This contract began in 1999 and runs through 2024. CertainTeed does not have minimum or maximum volume obligations, but their expected annual volume is approximately 222,000 cubic yards of gypsum (approximately 20% of annual gypsum production) based on recent utilization data.[6]

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[1] ATB #1 is not relevant to this analysis as it is not currently receiving any CCP, although it is available for emergency use.

[2] A bathymetric survey of ATB #2 was conducted by HDR/Quest/Rudy for GAI Consultants in February 2009.

[3] The available capacity of ATB #2 at the end of June 2009 is forecasted to be approximately 2.3 MCY.

[4] The available capacity of the gypsum stack at the end of June 2009 is forecasted to be approximately 2.6 MCY.

[5] KU identifies economically and environmentally favorable options to beneficially reuse CCP, consistent with KU's Comprehensive Strategy for Management of CCP shown in Exhibit JNV-3.

[6] Gypsum sales to CertainTeed were 263,000 tons in 2007, 375,000 tons in 2008, and 103,000 tons year-to-date through May 2009. However, their purchases decreased late in 2008 and year-to-date in 2009 as the economy slowed.

3. Process and Methodology

KU and Louisville Gas and Electric Company (collectively "the Companies") develop the most effective plan for meeting the CCP storage needs at each generating station. The process of identifying the plan consists of the three following primary tasks which are performed by several departments within the Companies.

- Needs assessment
- Development of alternatives
- Comparison of alternatives

The CCP storage needs are defined by forecasting the production of CCP over the applicable planning period as compared to the existing storage capacity. The Project Engineering department and the applicable generating station are responsible for providing an estimate of remaining capacity.

The expected life of the existing storage capacity is based on the forecast of CCP production, which is developed by Generation Planning for all stations as a function of the expected coal usage for each unit. The Companies compile information regarding the cost of generation for each unit (fuel, variable O&M, emission costs, etc.), a description of the generation capabilities of each unit (capacity, heat rate curve, commitment parameters, emission rates, availability schedules, etc.), a load forecast, the market price of electricity, and the volumetric ability (transfer capability) to access the market. All of this information is brought together in the PROSYM™[7] software, which is used to model the economic operation of the Companies' generating system. The projected coal usage data provided by this model is checked for reasonableness by comparing the results to historical data.

The Project Engineering department develops alternatives for on-site CCP storage solutions and their associated costs. Any alternatives for off-site disposal such as beneficial reuse or off-site landfill disposal are provided by the generating stations' staff and a CCP team focused on exploring alternatives for byproduct storage. The cash flows for selected options are summarized and provided to Generation Planning for evaluation.

The Generation Planning department evaluates the storage and disposal options received from Project Engineering to determine the present value of revenue requirements ("PVRR") associated with the capital expenditures and O&M expenses of each option. This analysis is performed using the Capital Expenditure Recovery module of the Strategist®[8] software model.

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[7] The PROSYM™ model has formed the foundation of prior analyses involving certificates of convenience and necessity for new generating plants, environmental cost recovery for pollution control equipment, and the fuel adjustment clause.

[8] Strategist® is a proprietary, state-of-the-art resource planning computer model. The Capital Expenditure Recovery module is used to quantify the revenue requirements impact associated with capital projects.

4. Needs Assessment

The following capacities were provided by Project Engineering and the Ghent station:

- ATB #1 is at capacity and is available for emergency use only.
- As of February 2009, the remaining available capacity of ATB #2 is 2.5 million cubic yards.[9]
- The remaining available capacity of the gypsum stacks is estimated to be 2.9 MCY as of January 2009.[10]

The expected life of the remaining capacity of the ATB #2 and the Gypsum Stack were estimated by forecasting the CCP production of ash and gypsum at Ghent. The quantity of ash produced at Ghent is estimated at a coal specification of 11.5% ash by weight of the total quantity of coal used, or approximately 11.5 tons of ash per 100 tons of coal. Converting to volumetric measurement, assuming ash production consists of 80% fly ash and 20% bottom ash by weight, approximately 11.5 cubic yards of total ash is produced per 100 tons of coal.[11]

The chemical reaction by which gypsum is produced results in a net gypsum production of approximately 18% by weight of the total quantity of coal used,[12] or approximately 18 tons of gypsum per 100 tons of coal. Converting to volumetric measurement for the gypsum stack, approximately 17.8 cubic yards of gypsum is produced per 100 tons of coal.

The forecasted CCP production volume for Ghent is shown in Table 1 and depicted graphically in Figure 1 and Figure 2, based on the forecasted coal burn shown in Table 2. Table 2 also contains the historical quantities of coal burned as a comparison to the forecast. The increase in coal burn during the 2010-2013 period is due to the completion of the FGD installations at Ghent in 2009, which required prior scheduled outages on each of the Ghent units during 2007-2009. Also, with the addition of the FGDs, Ghent has lower fuel costs, resulting in higher forecasted generation.

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[9] Based on expected coal burn, Generation Planning forecasts that by the end of 2009, the remaining capacity of ATB #2 will be 1.9 MCY.

[10] Based on expected coal burn and existing beneficial reuse, Generation Planning forecasts that by the end of 2009, the remaining capacity of the gypsum stacks will be 2.2 MCY.

[11] Density assumptions for wet storage are 0.945 tons per cubic yard for bottom ash and 1.0125 tons per cubic yard for both fly ash and gypsum.

[12] Fuel specification assumptions include SO_2 content of approximately 5.9 lb/mmBTU and heat content of 22.16 mmBTU/ton.

Table 1: CCP Production Forecast (MCY)

CCP Production Forecast *(MCY – wet storage)*			
	Fly Ash	**Bottom Ash**	**Gypsum**
2009	0.54	0.14	0.88
2010	0.55	0.15	1.09
2011	0.58	0.15	1.12
2012	0.55	0.15	1.06
2013	0.55	0.15	1.09

Table 2: Ghent Coal Usage (Million Tons)

Ghent Coal Usage *(M Tons)*	
Historical	
2004	5.4
2005	5.6
2006	5.6
2007	5.3
2008	5.7
Forecast	
2009	5.6
2010	6.0
2011	6.3
2012	6.1
2013	6.1

The forecasted generation and the resulting coal usage at Ghent correspond to an average capacity factor of approximately 77%. This relatively high capacity factor is consistent with Ghent's low production cost. Since Ghent is already modeled as a baseload station, the risk of significantly underestimating CCP production is low. However, reduction in load or unexpected outages at Ghent could affect the capacity factor and lower future CCP production.

Figures 1 and 2 show the forecasted cumulative CCP production at the end of each year compared to the expected available capacity at the end of 2009. With current forecasts for ash production and without any additional on-site capacity or off-site storage or reuse, ATB #2 is expected to reach full capacity during 2012, as shown in Figure 1. Assuming no beneficial reuse beyond the expected 222,000 cubic yards per year by CertainTeed, the gypsum stack is also expected to reach maximum capacity in 2012, as shown in Figure 2.

Figure 1: ATB #2 Capacity

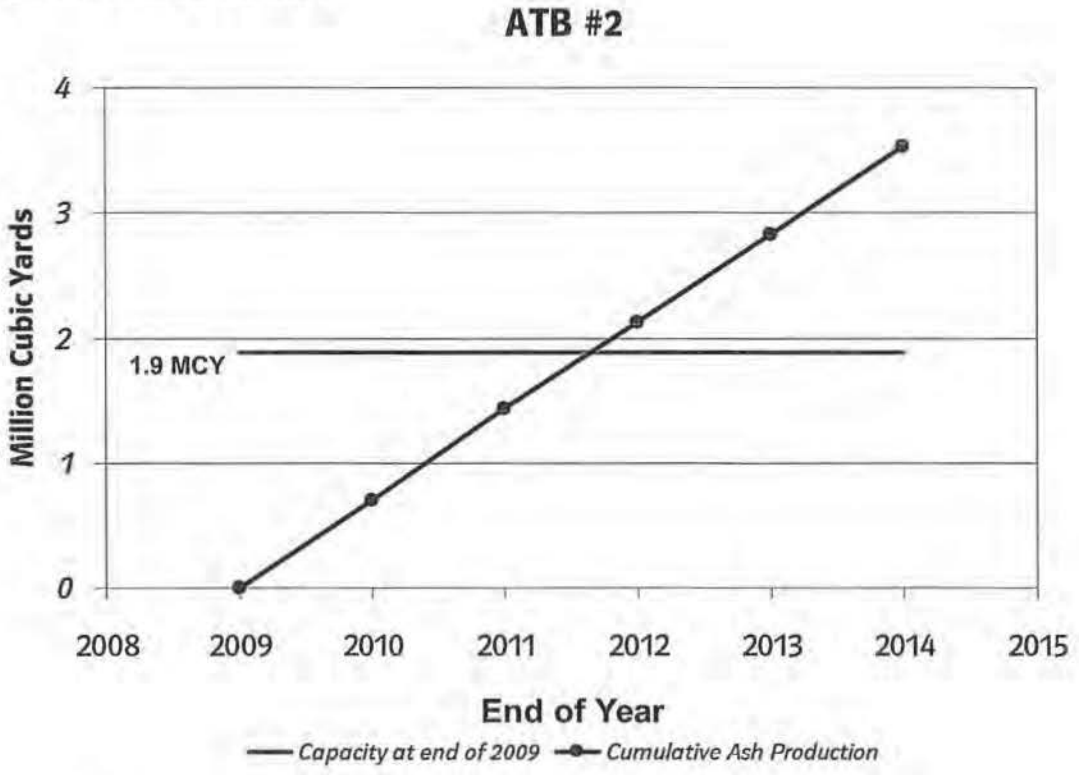
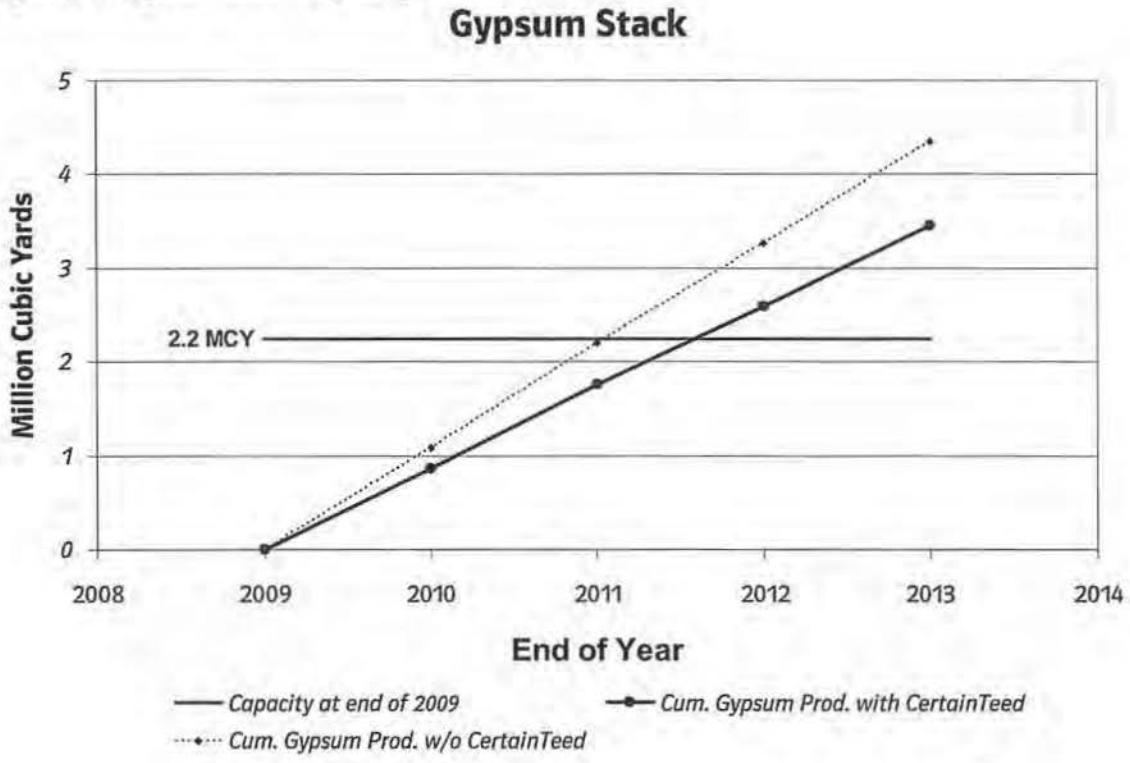


Figure 2: Gypsum Stack Capacity



In summary, the needs assessment indicates that additional CCP disposal alternatives will be needed for both ash and gypsum at Ghent by 2012. At least 0.6 MCY of CCP must be moved off-site in order to maintain operations of the existing storage facilities at Ghent through 2012.

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5. Development of Alternatives

In the case of CCP solutions for Ghent, Project Engineering and the CCP team developed two sets of options for evaluation:

1. Short-term storage options to meet 2009-2012 requirements
2. Long-term storage options to meet 2013-2037 requirements.

The short-term options were developed because long-term options cannot be in service before 2013, and on-site capacity is expected to be depleted in 2012. These options were evaluated independently, leading to a recommendation for short-term and long-term solutions.

5.1 Short-Term Disposal

As a result of ATB #2 and the gypsum stack nearing their maximum desired storage capacities, the station, in conjunction with the CCP Team, negotiated with Trans Ash, Inc. ("Trans Ash"), a company specializing in the reuse of CCP, to beneficially reuse 1.3 MCY (approximately 1.5 million tons as hauled) of CCP as structural fill. The 2009 base cost of this proposal is [redacted] per MCY[13], subject to annual adjustments to the base price and fuel cost adjustments. The base price is redetermined by increasing the previous year's price by 90 percent of the year-over-year percent change in the Consumer Price Index – All Urban Customers, U.S. City Average. The fuel adjustments are made for both off-road and on-road diesel use. Off-road fuel adjustments are calculated as the difference between the base diesel unit price of [redacted] per gallon and the average unit diesel price paid multiplied by the quantity of off-road diesel purchased each year. The on-road diesel adjustment is calculated as the product of the average quantity of fuel used and the difference between the base diesel price and the index price as published by the U.S. Department of Energy, Energy Information Administration in "The U.S. No 2 Diesel Low Sulfur (15-500 ppm) Retail Sales by All Sellers (Cents per Gallon)"

An agreement with Trans Ash would require that the full 1.3 MCY be moved in 2010-2012 to satisfy the end consumer of the beneficial reuse opportunity. Consistent with KU's CCP management strategy, this fill location has been evaluated and confirmed as appropriate for beneficial reuse. The location is not in an environmentally sensitive area.

The only near-term alternative to beneficial reuse of CCP is the use of an existing off-site commercial landfill. For 2009, the total unit cost of storage in the closest off-site landfill was estimated to be [redacted] per cubic yard[14]. In contrast to the Trans Ash proposal, an off-site landfill storage option requires that only a minimum of 0.6 MCY must be moved off-site prior to 2013 to ensure continuing operations at Ghent.

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13 [redacted] per MCY as stored is equivalent to [redacted] per ton as hauled.

14 [redacted] per cubic yard is equivalent to [redacted] per ton as hauled for transport and storage at Valley View landfill near Sulphur, KY, approximately 25 miles from Ghent. Cost components per ton are [redacted] for excavating and loading, [redacted] for hauling, and [redacted] for landfill tipping fee. This quoted tipping fee is slightly below the listed rates of [redacted]/ton for other regional public landfills.

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5.2 Long-Term Storage

To meet the long-term storage needs at Ghent, KU contracted GAI Consultants, Inc., Pittsburgh, PA ("GAI") to provide both an Initial Siting Study ("ISS") and a Final Conceptual Design Study of CCP storage alternatives at Ghent.[15] The ISS identified over forty potential alternatives based on combinations of a number of variables, including storage and transport methods, site locations, and relocation of transmission lines. As a result of this study, four on-site alternatives shown in Table 3 were selected for further consideration. In the process of developing the Final Conceptual Design Study, GAI refined the cost estimates for these alternatives in addition to other detailed engineering tasks. As an alternative to building on-site storage facilities, use of an existing off-site commercial landfill for storing future CCP was also considered as a long-term option.

Table 3: Alternatives for Long-Term Storage

		On-Site				
Case		**14/28**	**37**	**41**	**42/28**	**Off-Site Landfill**
Description		2 Landfills	1 Landfill	1 Pond	1 Pond 1 Landfill	
Total Capacity *(MCY)*		46.1	46.1	53.6	48.3	46.1 needed
Nominal Cost *($M)*	**Capital**					
	O&M[16]					

Each of the cases for on-site long-term storage was designed to hold twenty-five years of CCP production with phased construction. The total capacity required for each case differs due to the different density of CCP stored in ponds versus landfills. Table 4 shows the construction periods, the in-service years, and the capacity for each phase of the on-site cases. The site locations as shown in Figure 3 are noted as follows:

- Site M is north of ATB #2 on property owned by KU.
- Site E/F which is southeast of ATB #2 and include properties owned by KU and approximately 350 acres owned by others.
- Pond L represents vertical and lateral expansion east of ATB #2 with an impoundment.

[15] A preliminary draft of the Final Conceptual Design Study is shown in Exhibit JNV-4.
[16] The O&M figures in Table 3 include the cost for power to operate the on-site storage alternatives.

Figure 3: CCP Storage Site Alternatives

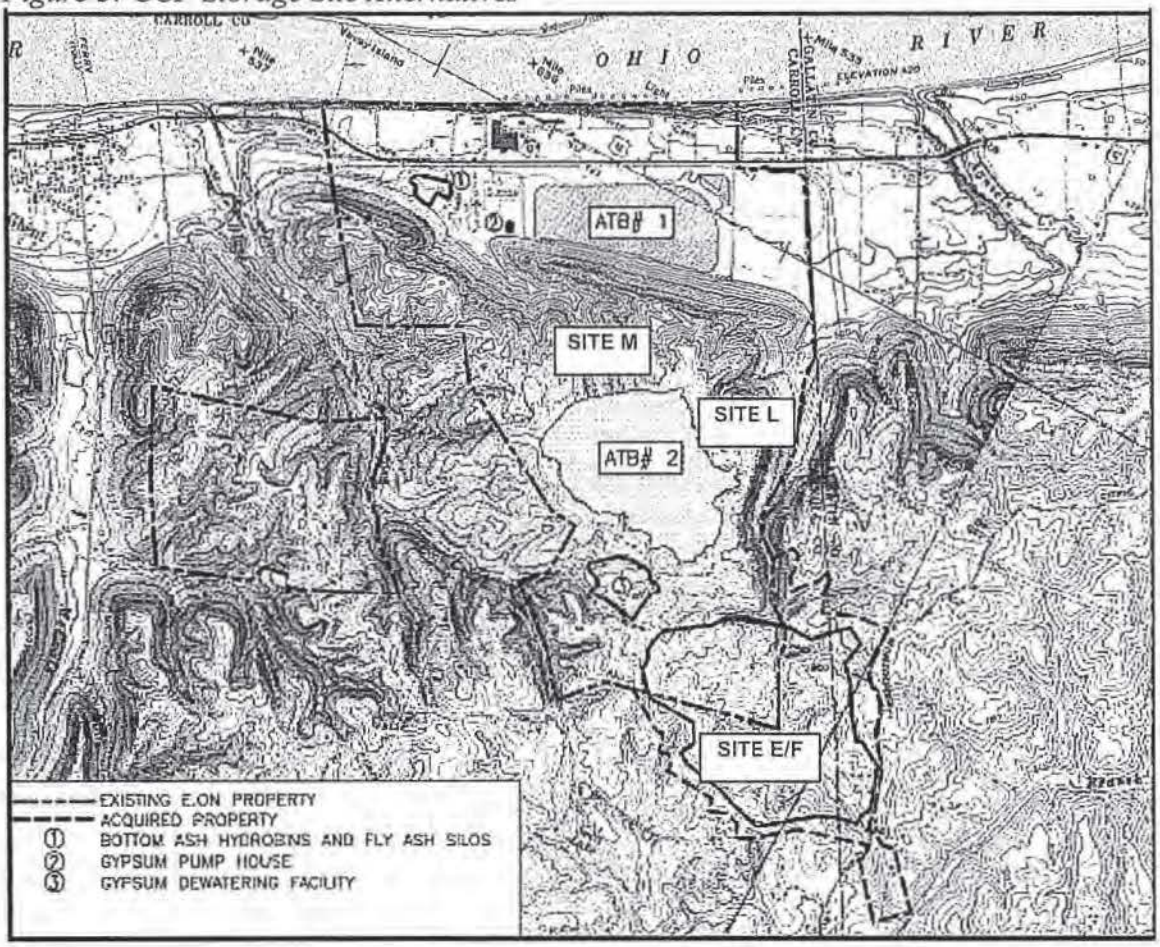


Table 4: Construction Phases for On-Site Storage Options

Case		**14/28**		**37**	**41**	**42/28**	
Site Location		M	E/F	E/F	L	L	E/F
Phase 1	**Construction**	2010-14		2010-14	2010-13	2010-14	
	In-Service	2013		2013	2013	2013	
	Capacity *(MCY)*	5.3	5.7	14.7	16.5	7.2	8.4
Phase 2	**Construction**	2016-18		2018-19	2017-19	2018-20	
	In-Service	2019		2020	2020	2021	
	Capacity *(MCY)*	8.5	8.0	12.3	15.7	8.3	7.7
Phase 3	**Construction**	--	2023-25	2024-26	2025-27	2027-29	
	In-Service	--	2026	2027	2028	2030	
	Capacity *(MCY)*	--	12.4	19.1	21.6	6.1	8.0
Phase 4	**Construction**	2027-29	--	--	--	--	
	In-Service	2030	--	--	--	--	
	Capacity *(MCY)*	6.2	--	--	--	--	--

Case 14/28. Case 14/28 consists of separate landfills for ash and gypsum with ash stored at Site M and gypsum stored at Site E/F. Construction of the landfills consists of four phases as shown in Table 4 with the first phase beginning in 2010 and the final phase ending in 2029. Figure 4 shows the phased cumulative design capacity of the landfill at Site M compared to the forecasted ash production. Figure 5 shows the phased cumulative design capacity of the landfill at Site E/F compared to the forecasted gypsum production both including and excluding the effect of the expected gypsum reuse by CertainTeed. These figures, as well as Figures 6-9, demonstrate that the designs for the timing and volume of capacity additions for each of the cases considered are reasonable compared the forecasted CCP production.

Figure 4: Long-Term Needs Assessment – Case 14/28, Landfill M

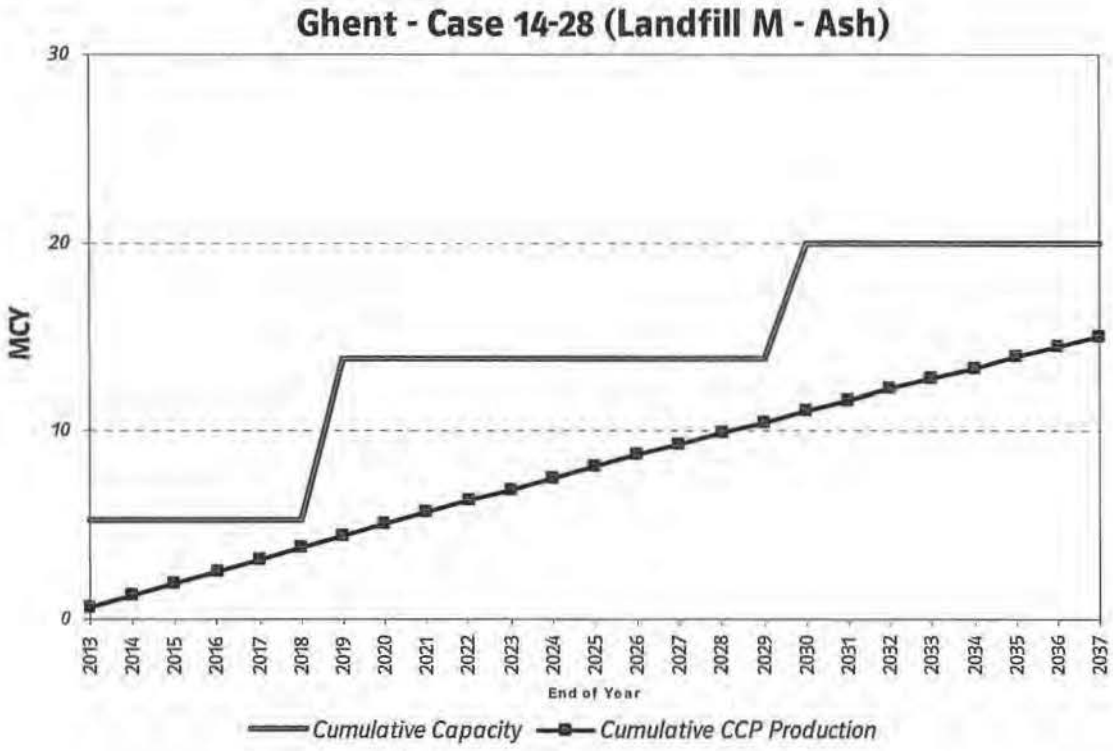
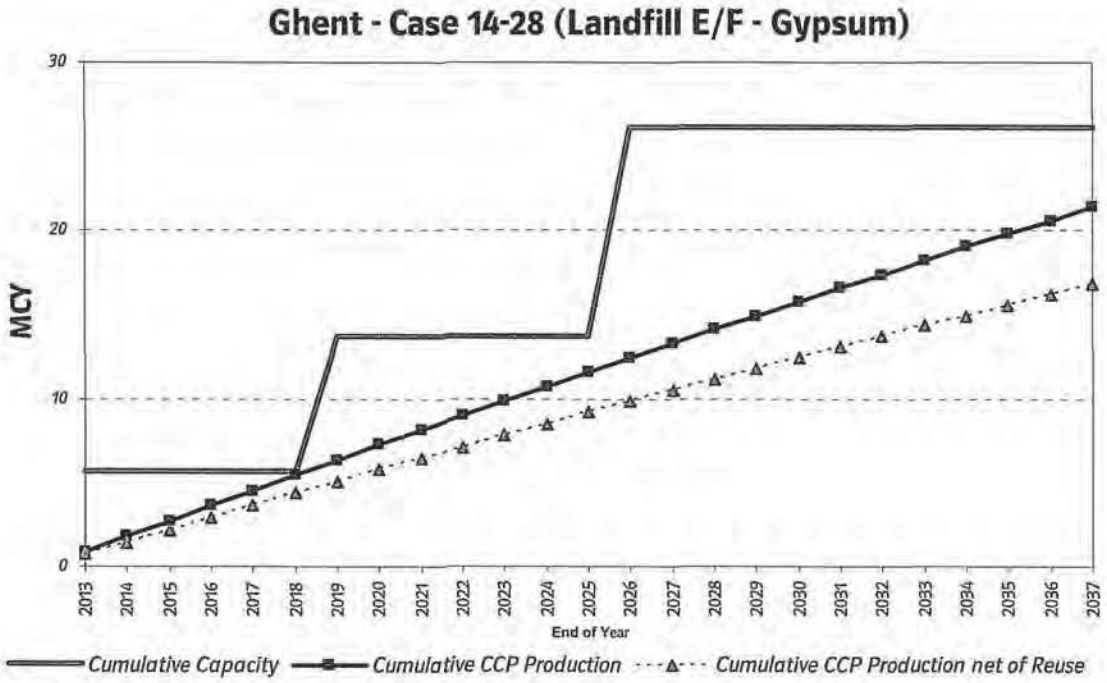
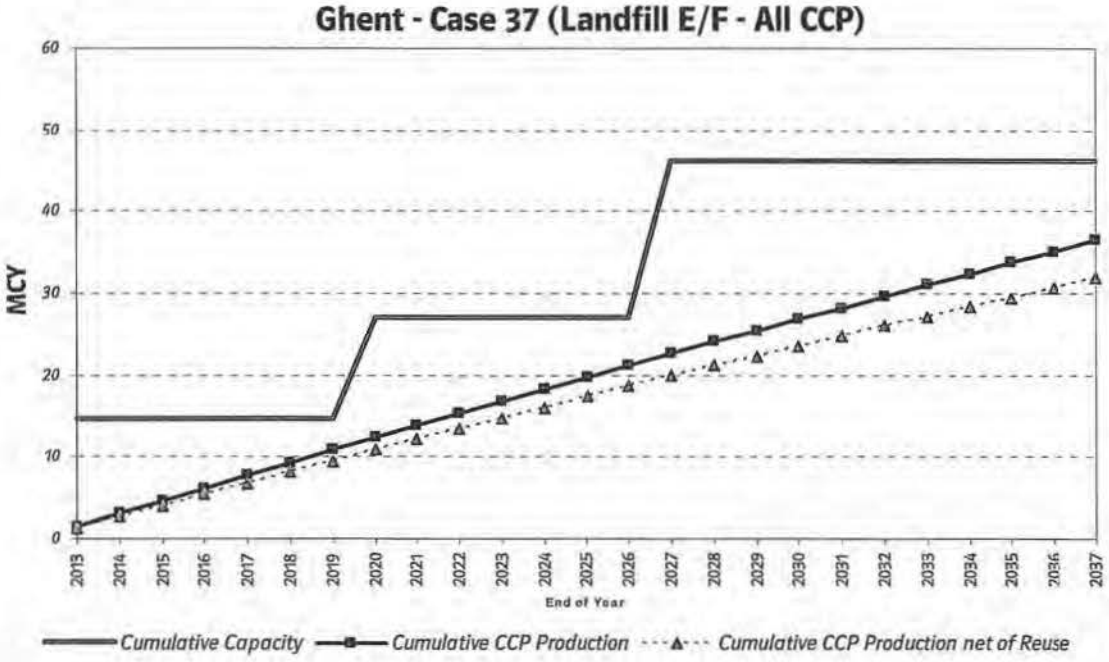


Figure 5: Long-Term Needs Assessment – Case 14/28, Landfill E/F



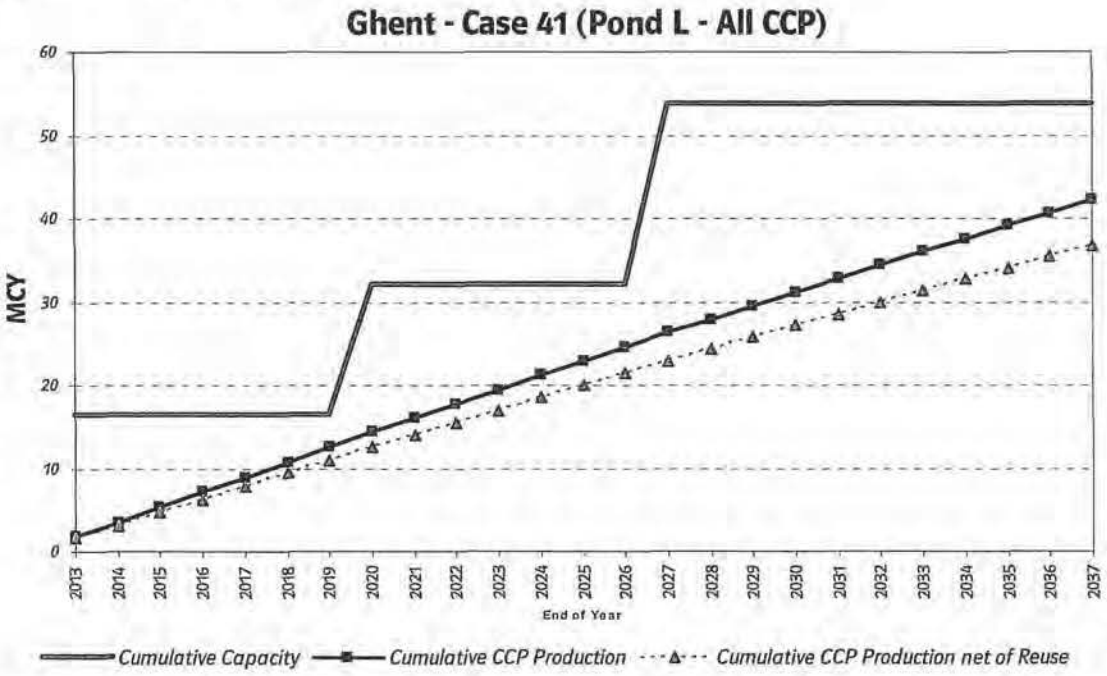
Case 37. Case 37 consists of a single landfill for both ash and gypsum at Site E/F. The construction schedule consists of three phases beginning in 2010 and ending in 2026. Figure 6 shows the phased cumulative design capacity of this landfill compared to the forecasted cumulative CCP production both including and excluding the effect of the expected gypsum reuse by CertainTeed.

Figure 6: Long-Term Needs Assessment – Case 37, Landfill E/F



Case 41. Case 41 consists of a single pond for both ash and gypsum at Site L. The construction schedule consists of three phases beginning in 2010 and ending in 2027. Figure 7 shows the phased cumulative design capacity of this landfill compared to the forecasted cumulative CCP production both including and excluding the effect of the expected gypsum reuse by CertainTeed.

Figure 7: Long-Term Needs Assessment – Case 41, Pond L



Case 42/28. Case 42/28 consists of a pond at "Site L" for ash and a landfill at "Site E/F" for gypsum. Construction of these facilities consists of four phases as shown beginning in 2010 and the final phase ending in 2029. Figure 8 shows the phased cumulative design capacity of the pond at Site L compared to the forecasted ash production. Figure 9 shows the phased cumulative design capacity of the landfill at Site E/F compared to the forecasted gypsum production both including and excluding the effect of the expected gypsum reuse by CertainTeed.

Figure 8: Long-Term Needs Assessment – Case 42/28, Pond L

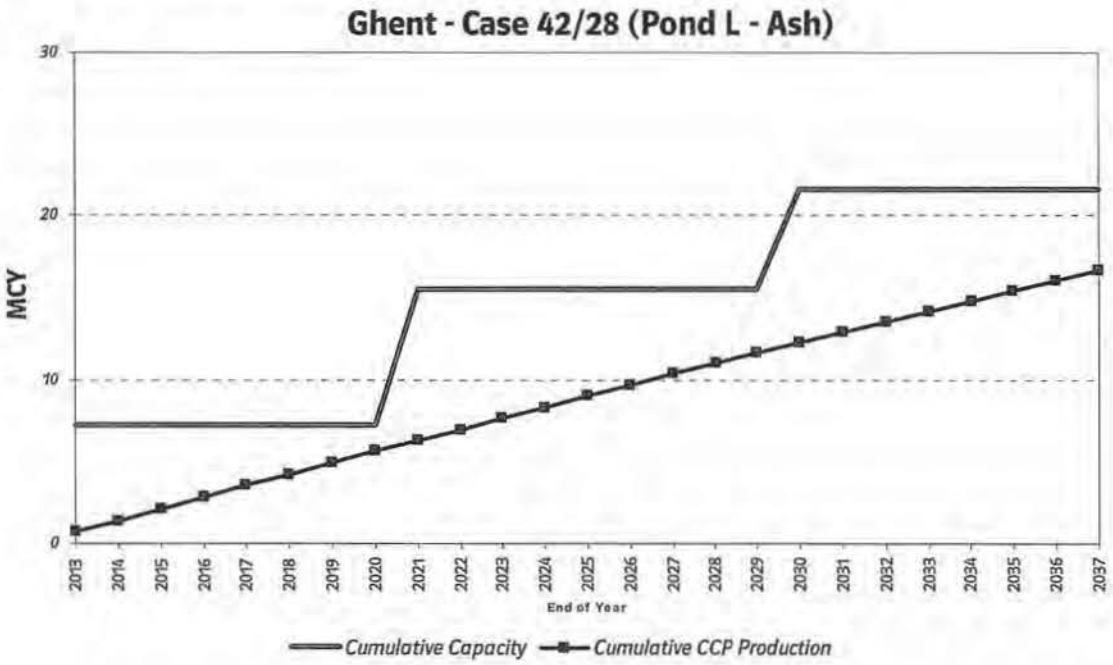
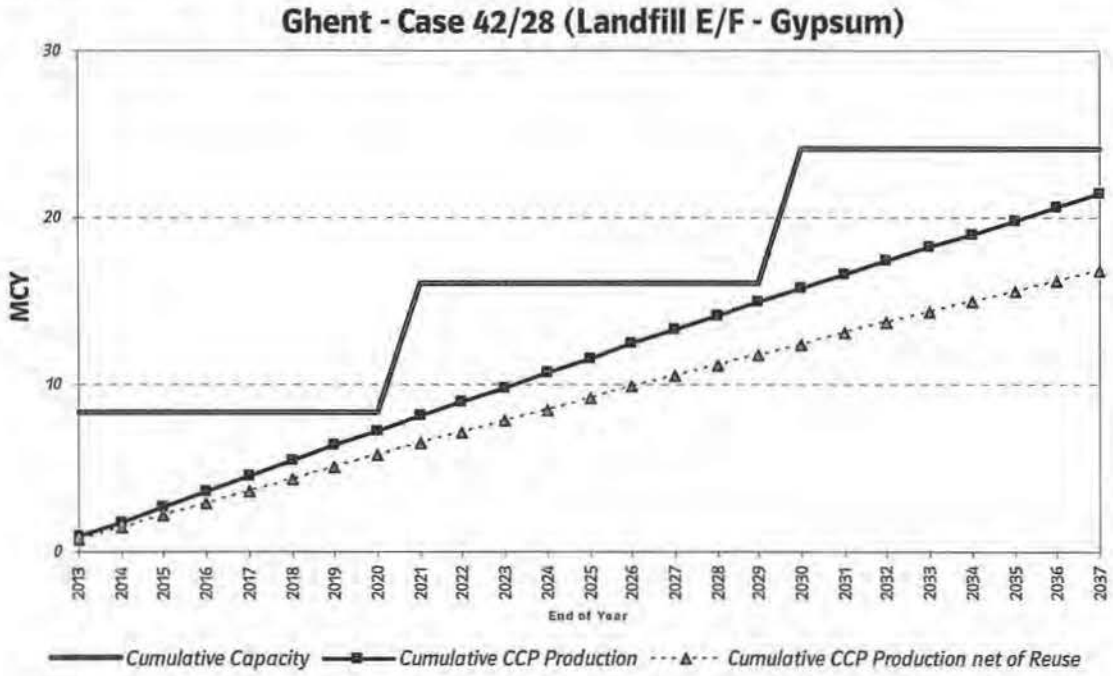


Figure 9: Long-Term Needs Assessment – Case 42/28, Landfill E/F



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6. Comparison of Alternatives

6.1 Short-Term Disposal

The short term disposal analysis compares the cost of a beneficial reuse initiative with Trans Ash to the cost of off-site landfill disposal. The Trans Ash proposal is to move 1.3 MCY in 2010 through 2012 and the plan for off-site landfill disposal is to move 0.6 MCY in 2012. Both of these options consist only of O&M costs, with no additional capital expenditure. As seen in Table 5, the Trans Ash proposal is the least-cost option to meet the short term capacity needs at Ghent. On a cost per volume basis, the Trans Ash option is almost 80% less costly than the off-site landfill option. Also, despite the higher volume requirement, the Trans Ash proposal's PVRR is $9.8 million lower than the off-site landfill alternative.

Table 5: PVRR Analysis Summary of Short-Term Alternatives

	Trans Ash Beneficial Reuse	**Off-site Landfill Disposal**
Total Quantity *(MCY)*	1.3	0.6
PVRR *(2009 million $)*	[redacted]	
Delta to Least Cost Case	*Least Cost*	*9.8*
Unit Cost *(2009 PVRR $/cubic yard)*	[redacted]	

6.2 Long-Term Storage

The long-term storage evaluation (Table 6) compares the PVRR and per-unit cost of four on-site storage alternatives selected in the engineering studies, in addition to disposal in an off-site commercial landfill. The financial assumptions related to the analysis of these cases are shown in Appendix 1, the projected cash flows are shown in Appendix 2, and the annual revenue requirements are detailed in Appendix 3.

The following is a brief comparison of the results:

Case 37. Case 37 consists of a common on-site landfill for both ash and gypsum. This is least cost on a PVRR basis by $26 million. This option is also lowest cost on a per unit volume basis at [redacted] PVRR per cubic yard. The favorable capital profile of this project results from the single landfill approach compared to Case 14/28, which includes separate landfills for ash and gypsum.

Case 14/28. Case 14/28 consists of separate landfills for ash and gypsum and involves higher up-front capital costs ($34 million higher through 2017, $6 million of which is due to transmission expenditures), an accelerated timeline for the addition of subsequent phases, and an additional construction phase compared to Case 37. This is partially offset by slightly lower annual O&M costs due to reduced distances for transporting ash. In summary, the lower costs associated with the shorter transport distances are overcome by the additional costs of the two landfills.

Cases 41 and Case 42/28. Case 41 consists of a single pond for both ash and gypsum and Case 42/28 consists of an ash pond and a gypsum landfill. The construction of an ash

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pond is significantly more capital intensive compared to a landfill, although the ongoing operation is less costly. Through 2016, both of these cases are approximately $95 million higher in total capital costs than Case 37. Construction of the second and third phases increases the capital premium to $850 million for Case 41 and $350 for Case 42/28. Inclusion of the pond closure costs in 2038 raises these figures to $1,145 million and $475 million for Cases 41 and 42/28, respectively. Although the O&M is significantly lower for these cases compared to Case 37, it is not enough to offset the effect of the higher initial capital expenditures.

Off-site landfill. The off-site landfill option consists only of O&M costs, but this option is the highest-cost alternative due to the high unit cost of off-site landfill disposal, which is approximately [redacted] PVRR per cubic yard.

Beneficial Reuse. KU will evaluate beneficial reuse opportunities as they arise, and will pursue proposals that are favorable to on-site disposal.

Table 6: PVRR Analysis Summary of Long-Term Alternatives
(2009 PVRR million $)

Case	14/28	37	41	42/28	Off-Site Landfill
PVRR					
Capital	[redacted]				
O&M					
Total					
Delta to Least Cost Case	*26*	*Least Cost*	*254*	*125*	*413*
Capacity *(MCY)*	46.1	46.1	53.6	48.3	46.1
Unit Cost *(2009 PVRR $/CY)*	[redacted]				

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7. Recommendations

The needs assessment demonstrates a need for additional CCP storage capacity at the Ghent station by 2012. Analysis of the options provided by Project Engineering demonstrates that the most favorable alternatives to meet Ghent's CCP storage needs are:

- Short-term: the proposal for beneficial reuse of 1.3 MCY of gypsum by Trans Ash in 2010 through 2012. The PVRR is [redacted] million, or [redacted] per cubic yard.
- Long-term: constructing the first phase of an on-site landfill to store both ash and gypsum, to be in-service in 2013. The PVRR is [redacted] million, comprised of [redacted] million capital and [redacted] million O&M.

The short-term solution utilizing beneficial reuse is almost 80% less on a per unit of volume basis than disposal at an off-site commercial landfill. The unit cost of this short-term recommendation is also lower than the unit cost of the recommended long-term on-site landfill. The long-term solution includes the construction of a single landfill and is 4% less on a PVRR basis than the dual landfill option (Case 14/28).

Further details regarding the status of this project and the expected construction schedule are shown in Appendix 4.

Appendix 1

Analysis Assumptions

- Study Period: 30-year period for operational costs impacts (2009-2038)
  50-year period for capital costs impacts (2009 through tax life of final project phase).

  The revenue requirements associated with capital costs are determined via the Capital Expenditure and Recovery module of the Strategist production and capital costing software. To completely account for capital projects costs over their lifetime, the revenue requirements associated with new capital projects were included beyond the operational study period through the end of their tax life.

- Capital and O&M costs associated with the addition of new environmental projects will be subject to recovery through the Environmental Cost Recovery ("ECR") mechanism. O&M costs for electrical power usage required to operate equipment related to CCP storage are included when comparing alternatives (noted as "Power" in Appendix 2) but are not included as recoverable costs for calculation of ECR billing factors.

- Financial data
  - Discount rate: 7.81%
  - Income tax rate: 38.9%
  - Insurance rate: 0.07%
  - Property tax rate: 0.15 %
  - Percentage of debt in capital structure: 47.01%
  - Debt interest rate/weighted cost of debt: 4.64%
  - Return on equity: 10.63%
  - Book life - average landfill phase (non-transmission): 12 years
  - Book life – transmission (line relocation): 40 years
  - Tax life: 20 years
  - Annual capital and O&M escalation rate: 6%
  - Contingency included in cost estimates: ~28%
  - E.ON US overhead included in capital costs 3.5%
  - Capital expenditures are assumed to occur at year end.

- CCP data
  - Coal ash content: 11.5%
  - Coal SO_2 content: ~5.9 lb/mmBTU
  - Coal heat content: 22.16 mmBTU/ton
  - FGD removal efficiency:
    Units 1, 3, 4 98%
    Unit 2 (currently Unit 1) 94.3%

Appendix 2

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Projected Cash Flows

Annual Cash Flows Short-Term Options O&M Only *($ thousands)*		
Case	**Beneficial Reuse**	**Off-Site Landfill**
2008	[redacted]	
2009		
2010		
2011		
2012		
2013+		
Total		

$ thousands

Case **14/28** **2 landfills**

	Annual Cash Flows										
	Capital						**O&M**				**Total**
	Phase1	Phase2	Phase3	Phase4	Transmission	**Total Capital**	Non-Power	Power	Trans Ash	**Total O&M**	
2008	[redacted]										
2009											
2010											
2011											
2012											
2013											
2014											
2015											
2016											
2017											
2018											
2019											
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2031											
2032											
2033											
2034											
2035											
2036											
2037											
2038											
Total											

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$ thousands

Case 37 1 landfill

	Annual Cash Flows										
	Capital						O&M				Total
	Phase1	Phase2	Phase3	Phase4	Transmission	Total Capital	Non-Power	Power	Trans Ash	Total O&M	
2008											
2009											
2010											
2011											
2012											
2013											
2014											
2015											
2016											
2017											
2018											
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2029											
2030											
2031											
2032											
2033											
2034											
2035											
2036											
2037											
2038											
Total											

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$ thousands

Case 41 1 pond

	Annual Cash Flows										
	Capital						O&M				Total
	Phase1	Phase2	Phase3	Phase4	Transmission	Total Capital	Non-Power	Power	Trans Ash	Total O&M	
2008											
2009											
2010											
2011											
2012											
2013											
2014											
2015											
2016											
2017											
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2032											
2033											
2034											
2035											
2036											
2037											
2038											
Total											

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$ thousands

Case 42/28 1 pond/1 landfill

	Annual Cash Flows										
	Capital						O&M				Total
	Phase1	Phase2	Phase3	Phase4	Transmission	Total Capital	Non-Power	Power	Trans Ash	Total O&M	
2008	[redacted]										
2009											
2010											
2011											
2012											
2013											
2014											
2015											
2016											
2017											
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2032											
2033											
2034											
2035											
2036											
2037											
2038											
Total											

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$ thousands

Case	Off-Site Landfill (O&M Only)		
	Capital	O&M	
Cost Escalation		6%	2%
2008			
2009			
2010			
2011			
2012			
2013			
2014			
2015			
2016			
2017			
2018			
2019			
2020			
2021			
2022			
2023			
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2031			
2032			
2033			
2034			
2035			
2036			
2037			
2038			
Total			

Appendix 3

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Revenue Requirements Detail

$ thousands

Case **Short-Term Beneficial Reuse (O&M Only)**

	Capital	O&M
2008	[redacted]	
2009		
2010		
2011		
2012		
2013+		
2009 PVRR		

$ thousands

Case **Short-Term Off-Site Landfill (O&M Only)**

	Capital	O&M
2008	[redacted]	
2009		
2010		
2011		
2012		
2013+		
2009 PVRR		

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$ thousands

Case 14/28 2 landfills

	Annual Revenue Requirements										
	Capital						O&M				Total
	Phase1	Phase2	Phase3	Phase4	Transmission	Total Capital	Non-Power	Power	Trans Ash	Total O&M	
2009	[redacted]										
2010											
2011											
2012											
2013											
2014											
2015											
2016											
2017											
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2054											
2055											
2056											
2057											
2058											
2009 PVRR											

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$ thousands

Case 37 1 landfill

	Annual Revenue Requirements										
	Capital						O&M				Total
	Phase1	Phase2	Phase3	Phase4	Transmission	Total Capital	Non-Power	Power	Trans Ash	Total O&M	
2009											
2010											
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2058											
2009 PVRR											

CCP Plan for Ghent Station
June 2009
Appendix 3 – Revenue Requirements Detail

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$ thousands

Case 41 1 pond

	Annual Revenue Requirements										
	Capital						O&M				Total
	Phase1	Phase2	Phase3	Phase4	Transmission	Total Capital	Non-Power	Power	Trans Ash	Total O&M	
2009	[redacted]										
2010											
2011											
2012											
2013											
2014											
2015											
2016											
2017											
2018											
2019											
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2055											
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2057											
2058											
2009 PVRR											

CCP Plan for Ghent Station
June 2009
Appendix 3 – Revenue Requirements Detail

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$ thousands

Case **42/28** **1 pond/1 landfill**

	Annual Revenue Requirements										
	Capital						O&M				Total
	Phase1	Phase2	Phase3	Phase4	Transmission	**Total Capital**	Non-Power	Power	Trans Ash	**Total O&M**	
2009	[redacted]										
2010											
2011											
2012											
2013											
2014											
2015											
2016											
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2057											
2058											
2009 PVRR											

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Case **Off-Site Landfill (O&M Only)**

$ thousands

using 6% cost escalation

	Capital	O&M
2008	[redacted]	
2009		
2010		
2011		
2012		
2013		
2014		
2015		
2016		
2017		
2018		
2019		
2020		
2021		
2022		
2023		
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2030		
2031		
2032		
2033		
2034		
2035		
2036		
2037		
2038		
2009 PVRR		

using 2% cost escalation

	Capital	O&M
2008	[redacted]	
2009		
2010		
2011		
2012		
2013		
2014		
2015		
2016		
2017		
2018		
2019		
2020		
2021		
2022		
2023		
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2037		
2038		
2009 PVRR		

Appendix 4

Project Status *(As of April 2009)*

Detailed Design

The detailed design phase for Case 37 is currently in progress. Meetings are being conducted with the E.ON U.S. property appraiser and the individual owners of properties within the boundaries of Site F. After obtaining approval from these property owners, geotechnical, archaeological, ecological, and historical structures studies have begun. This will allow for the completion of the detailed engineering design and the start of the development of the permits for this location. The permits are expected to be submitted by the end of 2009.

Construction Schedule

The preliminary design for the landfill is to develop it in three distinct phases. This detail as well as the closure plan for each phase will be further developed in the detailed design phase. The current schedule is shown in Table A4-1.

Table A4-1: Preliminary Construction Schedule

Task	Schedule
Property acquisition	3rd Quarter 2009
Begin first phase landfill development	2nd Quarter 2010
Finish first phase landfill development	4th Quarter 2014
Begin second phase landfill development	2nd Quarter 2018
Finish second phase landfill development	4th Quarter 2019
Begin third phase landfill development	2nd Quarter 2024
Finish third phase landfill development	4th Quarter 2026

The risks associated with the project include the following:

- Inability to reach a settlement on purchase price for one or more of the properties required for the site, resulting in lengthy eminent domain litigation
- Discovery of unknown geotechnical issues
- Litigation and intervention of the 401/404 permits for Sites E/F could delay the construction of this section of the work
- Failure of major components during start-up
- Unseasonable weather, such as exceptionally heavy rainfall, late spring, early on-set of winter, etc.
- Engineering design failure of a component of design
- Contractor delays due to shortage of materials or manpower issues
- Change in regulations

EXHIBIT B

Revenue Requirements Summary
2009 Amended Plan - KU

		2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Project 30	**Ghent Landfill - Phase I**										
	Revenue Requirement										
	Eligible Plant	4,321,671	46,476,848	105,485,803	177,577,356	191,133,916	201,941,953	202,576,976	203,254,220	203,969,979	203,969,979
	Less: Retired Plant	-	-	-	-	-	-	-	-	-	-
	Less: Accumulated Depreciation	-	-	-	-	(5,110,443)	(10,744,624)	(16,396,577)	(22,067,370)	(27,758,132)	(33,448,895)
	Plus: Accumulated Depreciation on retired plant	-	-	-	-	-	-	-	-	-	-
	Less: Deferred Tax Balance	-	-	-	-	(732,114)	(3,915,287)	(6,717,731)	(9,167,625)	(11,289,716)	(13,100,909)
	Plus: Deferred Tax Balance on retired plant	-	-	-	-	-	-	-	-	-	-
	Environmental Compliance Rate Base	4,321,671	46,476,848	105,485,803	177,577,356	185,291,361	187,282,042	179,464,668	172,019,025	164,922,131	157,420,175
	Rate of return	11.12%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
		$ 480,509	$ 5,098,393	$ 11,571,030	$ 19,478,952	$ 20,325,122	$ 20,543,496	$ 19,685,976	$ 18,869,243	$ 18,090,765	$ 17,267,855
	Operating expenses	84,800	121,349	128,630	136,348	19,003,308	20,143,507	21,352,117	22,633,244	23,991,239	25,430,713
	Annual Depreciation expense	-	-	-	-	5,110,443	5,634,180	5,651,953	5,670,793	5,690,762	5,690,762
	Less depreciation on retired plant	-	-	-	-	-	-	-	-	-	-
	Annual Property Tax expense	-	6,483	69,716	158,229	266,366	279,035	286,796	279,274	271,780	264,318
	Total OE	$ 84,800	$ 127,832	$ 198,346	$ 294,577	$ 24,380,117	$ 26,056,723	$ 27,290,866	$ 28,583,310	$ 29,953,782	$ 31,385,793
	Total E(m)	565,309	5,226,225	11,769,376	19,773,528	44,705,239	46,600,208	46,976,843	47,452,553	48,044,547	48,653,648

EXHIBIT C

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

THE APPLICATION OF KENTUCKY UTILITIES COMPANY FOR A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY AND APPROVAL OF ITS 2009 COMPLIANCE PLAN FOR RECOVERY BY ENVIRONMENTAL SURCHARGE	))))))	CASE NO. 2009-00197

DIRECT TESTIMONY OF
JOHN N. VOYLES, JR.
VICE PRESIDENT, TRANSMISSION AND GENERATION SERVICES
KENTUCKY UTILITIES COMPANY

Filed: June 26, 2009

contain sufficient capacity for bottom ash storage for approximately 30 years. The Main Pond will have approximately six (6) years of projected remaining capacity after elevation 912 feet is completed in 2012.

Exhibit JNV-8 is a conceptual design report for the Brown station ash treatment basin, prepared by the Fuller Mossbarger Scott and May engineering firm. Exhibit JNV-9 is a preliminary design report for the Brown station ash treatment basin, also prepared by Fuller Mossbarger Scott and May engineering firm. Exhibits JNV-8 and JNV-9 are on the compact disc included with this testimony and provide more details associated with this project.

Q. Is this project a cost-effective means of complying with environmental regulations and permits?

A. Yes, this project allows KU to continue to comply with all applicable environmental regulations. As first demonstrated in Case No. 2004-00426, and consistent with the 2006 ECR Update made to the Commission staff, the phased approach to the construction of the ash treatment basins continues to be the least-cost approach to manage CCP at the Brown station. As detailed in the testimony of Mr. Schram, high costs continue to preclude cost effective off-site alternatives.

Project 30 – Ghent Station Landfill

Q. Please describe the new landfill at the Ghent Station (Project 30), the anticipated cost and the associated timeline.

A. Project 30 consists of the first phase (Phase I) of a three phase, new landfill construction project at the Ghent station for continued on-site management of CCP. Completion of this project requires the procurement of approximately 350 acres of

land and relocation of approximately 2,500 linear feet of transmission line, existing underground utilities and a small cemetery (currently known to contain six burial plots). The project includes a transport system for the CCP material and the installation of a leachate collection/sediment retention pond. Phase I is expected to cost approximately $204 million with a total project capital cost (Phases I-III) estimated to be approximately $360 million. Phase I construction is expected to take 18-24 months to complete and is expected to be in-service by 2013.

Of the two existing on-site ash treatment basins, Basin #2 is currently the only operational basin at the Ghent station. Basin #1 reached its maximum desired capacity in 1995. Basin #2 was put into service in 1995 with a storage capacity of 2,580 acre-feet. In Case No. 2002-00208, KU advised the Commission that Basin #2 would be constructed in two phases. Detailed bids indicated that the two phase construction to elevation 800 feet had a projected total cost of $25.9 million (2002 dollars), while construction to 800 feet in one project had a total cost of $17.3 million. To take advantage of this significant cost savings, KU modified the construction project and undertook a single project to elevate the dike to 800 feet. As mentioned in Exhibit CRS-3 of Mr. Schram's testimony (the Coal Combustion Byproduct Plan for the Ghent station), vertical expansion of Basin #2 beyond 800 feet at Ghent was determined to be cost prohibitive.

Project 30 (Phase I of the proposed new landfill at the Ghent generating station) includes the following scope of work:

1. **Initial Siting Study** (Completed) – This phase evaluated various CCP storage locations on existing Ghent property and the area surrounding the plant. Initially, 42 landfill and impoundment scenarios were evaluated during this study.

2. **Conceptual Design** (Completed) – This phase took the results of the Initial Siting Study and developed 5 storage alternatives and provided scope of work estimates and net present value evaluations. Based on this data the best storage alternative was chosen, Case #37 – Single 25 year, landfill located on both existing plant and non-plant property.

3. **Final Design** (In Progress) – This phase will design and permit Case #37. Work in this phase will include the landfill design/permitting, wetlands/stream mitigation, transmission/distribution line relocation design, various environmental studies, etc. The goal of this phase is to obtain the construction permits, develop Issued for Construction drawings and specifications for all phases, as well as develop the landfill O&M manual.

4. **Phase I Construction** – Once the Certificate of Public Convenience and Necessity ("CPCN") and the permits have been received, a contractor will be chosen to perform the following (this is a high level list of activities):

- Mobilization
- Clearing and grubbing of the landfill and borrow areas
- Construction of stormwater/sediment ponds
- Grade work to attain the proper subgrade of the landfill
- Development of the borrow site(s)
- Installation of the liner system
- Installation of the leachate collection system, ponds, as well as the transfer system
- Construction of new site access roads
- Installation of the gypsum fines systems
- Construction of the CCP transfer storage facility across US-42
- Installation of the pipe conveyor
- Construction of the Gypsum Dewatering facility
- Upgrades to existing CCP transfer systems
- De-mobilization

Exhibit JNV-10 consists of two GAI Consultants reports on the initial siting study and conceptual design of the Ghent station landfill and is on the compact disc included with this testimony. Exhibit JNV-10 provides more details associated with this project.

Q. Is KU requesting a CPCN for the proposed landfill at Ghent (Project 30)?

A. Yes, as discussed in the testimony of Mr. Bellar, KU is requesting a CPCN for Project 30 in Exhibit JNV-1. Project 30 is associated with the construction of a new landfill and supporting systems at the Ghent station.

Q. Why is KU seeking a CPCN for Project 30, the proposed Ghent landfill at this time?

A. As discussed in Exhibit CRS-3 of Mr. Schram's testimony, KU's Ghent station produces three (3) coal combustion byproducts: bottom ash, fly ash and gypsum. The station has two (2) existing on-site treatment basins for ash and two (2) stacking areas for gypsum. Basin #1 is at its maximum desired capacity. As discussed in Exhibit CRS-3, Basin #2 and the gypsum stack facilities are both forecasted to reach their maximum desired capacity in 2012. In accordance with the CCP Strategy and the analysis presented in Mr. Schram's testimony, the recommended long-term CCP management alternative is Project 30, a landfill for all CCP material. The preliminary construction schedule for this project requires construction of the landfill to begin in 2010. As such, KU is requesting a CPCN in support of this project.

Q. What alternatives to the proposed project were evaluated?

A. The Initial Siting Study identified 42 potential alternatives based on combinations of variables including

- storage and CCP transport methods

- site locations
- transmission line relocation needs

Consistent with the CCP Strategy, opportunities for beneficial reuse were also evaluated by the Companies. The beneficial reuse alternatives at Ghent are discussed in Project 33. Mr. Schram's testimony provides details associated with the evaluation of the alternatives at Ghent.

Q. Is the proposed new on-site landfill at Ghent (Project 30) consistent with the Companies' strategy for long-term management of CCP?

A. Yes. The landfill ensures adequate on-site CCP management capacity exists for the long-term and will be constructed in multiple phases. Furthermore, as discussed in Mr. Schram's testimony, analytical assessments have been performed to identify and utilize any cost effective beneficial reuse alternatives in order to minimize environmental impact and promote environmental stewardship.

Q. Is this project a cost-effective means of complying with environmental regulations and permits?

A. Yes. Project 30 provides the best means of compliance with discharge and water quality regulations. Mr. Schram's testimony provides details associated with the economics of this project.

Project 31 -- Trimble County Station
Ash Treatment Basin and Gypsum Storage Pond

Q. Please describe the Trimble County Station Ash Treatment Basin and Gypsum Storage Pond (Project 31), the anticipated cost and the associated timeline.

A. The primary CCP managed at the Trimble County station are bottom ash, fly ash and gypsum, all of which are currently managed either through treatment in the 85 acre

EXHIBIT D

Revenue Requirments Summary
Gypsum Disposal at Sterling Materials

			2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Revenue Requirement													
Eligible Plant			$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 203,254,220	$ 203,969,979	$ 203,969,979	$ 248,969,979
Less Gypsum Plant			$ -	$ (14,090,000)	$ (40,060,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (98,110,000)
Revised Eligible Plant			$ 4,321,671	$ 32,388,846	$ 65,425,803	$ 124,467,356	$ 138,023,918	$ 148,831,953	$ 149,468,976	$ 150,144,220	$ 150,859,979	$ 150,859,979	$ 150,859,979
Less Accumulated Depreciation							$ (3,690,414)	$ (7,842,826)	$ (12,013,010)	$ (16,202,034)	$ (20,411,027)	$ (24,620,020)	$ (28,829,013)
Less Deferred Tax Balance							$ (528,683)	$ (2,857,926)	$ (4,921,730)	$ (6,731,945)	$ (8,301,165)	$ (9,641,200)	$ (11,289,441)
Environmental Compliance Rate Base			$ 4,321,671	$ 32,388,846	$ 65,425,803	$ 124,467,356	$ 133,804,821	$ 138,131,202	$ 132,534,236	$ 127,210,241	$ 122,147,788	$ 116,598,759	$ 110,741,525
Rate of Return			11.1%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
Assumed Tons (1.155)	1,000,000		$ 480,509	$ 3,553,056	$ 7,177,211	$ 13,654,069	$ 14,678,389	$ 15,152,993	$ 14,539,006	$ 13,954,963	$ 13,399,612	$ 12,790,884	$ 12,148,345
86.7500% Cubic yards	867,500												
Operating Expenses			$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,556
less Gypsum to On-site Landfill							$ (8,887,032)	$ (9,420,254)	$ (9,985,469)	$ (10,584,598)	$ (11,219,674)	$ (11,892,854)	$ (12,606,425)
Gypsum to Sterling	**$ 10.50**						$ 10,500,000	$ 11,130,000	$ 11,797,800	$ 12,505,668	$ 13,256,008	$ 14,051,369	$ 14,894,451
Net Operating			$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 20,616,276	$ 21,853,253	$ 23,164,448	$ 24,554,314	$ 26,027,573	$ 27,589,228	$ 29,244,581
Annual Depreciation							$ 3,690,414	$ 4,152,411	$ 4,170,184	$ 4,189,024	$ 4,208,993	$ 4,208,993	$ 4,208,993
Annual Property Tax Expense				$ 6,483	$ 69,718	$ 158,229	$ 266,366	$ 279,017	$ 286,798	$ 279,274	$ 271,751	$ 264,317	$ 264,317
Total OE			$ 84,800	$ 127,832	$ 198,348	$ 294,577	$ 24,573,056	$ 26,284,681	$ 27,621,430	$ 29,022,612	$ 30,508,317	$ 32,062,537	$ 33,717,891
Total E(m) Gypsum to Sterling		$ 476,298,826	$ 565,309	$ 3,680,888	$ 7,375,559	$ 13,948,646	$ 39,251,445	$ 41,437,674	$ 42,160,436	$ 42,977,575	$ 43,907,929	$ 44,853,421	$ 45,866,236
Total E(m) - Project 30 (See below)		$ 555,782,375	$ 565,309	$ 5,226,225	$ 11,769,378	$ 19,773,528	$ 44,705,239	$ 46,600,208	$ 46,976,843	$ 47,458,553	$ 48,044,547	$ 48,653,648	$ 55,312,476
Difference **PVRR**	**7.81%**	**$ (79,483,549)**	$ -	$ (1,545,337)	$ (4,393,819)	$ (5,824,882)	$ (5,453,794)	$ (5,162,534)	$ (4,816,407)	$ (4,480,978)	$ (4,136,618)	$ (3,800,227)	$ (9,446,240)
Date			12/31/2009	12/31/2010	12/31/2011	12/31/2012	12/31/2013	12/31/2014	12/31/2015	12/31/2016	12/31/2017	12/31/2018	12/31/2019

Revenue Requirments Summary
2009 Amended Plan
Project 30 Ghent Landfill Phase I
See Exhibit B

			2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
													Start Phase II
Revenue Requirement													$ 40,000,000
Eligible Plant			$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 203,254,220	$ 203,969,979	$ 203,969,979	$ 248,969,979
Less Gypsum Plant			$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Revised Eligible Plant			$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 203,254,220	$ 203,969,979	$ 203,969,979	$ 248,969,979
Less Accumulated Depreciation							$ (5,110,443)	$ (10,744,623)	$ (16,396,576)	$ (22,067,369)	$ (27,758,131)	$ (33,448,893)	$ (40,395,155)
Less Deferred Tax Balance							$ (732,114)	$ (3,915,341)	$ (6,717,677)	$ (9,168,992)	$ (11,289,232)	$ (13,098,586)	$ (15,818,743)
Environmental Compliance Rate Base			$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 185,291,361	$ 187,281,989	$ 179,464,723	$ 172,017,859	$ 164,922,616	$ 157,422,500	$ 192,756,081
Rate of Return			11.1%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
			$ 480,509	$ 5,098,729	$ 11,571,793	$ 19,480,236	$ 20,326,462	$ 20,544,834	$ 19,687,280	$ 18,870,359	$ 18,092,011	$ 17,269,248	$ 21,145,342
Operating Expenses			$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,555.78
less Gypsum to On-site Landfill							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Gypsum to Sterling							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Net Operating			$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,556
Annual Depreciation							$ 5,110,443	$ 5,634,180	$ 5,651,953	$ 5,670,793	$ 5,690,762	$ 5,690,762	$ 6,946,262
Annual Property Tax Expense				$ 6,483	$ 69,718	$ 158,229	$ 266,366	$ 279,017	$ 286,798	$ 279,274	$ 271,751	$ 264,317	$ 264,317
Total OE			$ 84,800	$ 127,832	$ 198,348	$ 294,577	$ 24,380,117	$ 26,056,704	$ 27,290,868	$ 28,583,311	$ 29,953,752	$ 31,385,792	$ 34,167,134
Total E(m) Gypsum to On-site Landfill as Calculated			$ 565,309	$ 5,226,561	$ 11,770,141	$ 19,774,813	$ 44,706,579	$ 46,601,539	$ 46,978,148	$ 47,453,670	$ 48,045,763	$ 48,655,040	$ 55,312,476
Total E(m) Gypsum to On-site Landfill per KU			$ 565,309	$ 5,226,225	$ 11,769,378	$ 19,773,528	$ 44,705,239	$ 46,600,208	$ 46,976,843	$ 47,458,553	$ 48,044,547	$ 48,653,648	
Calculation Check Difference			$ -	$ 336	$ 763	$ 1,285	$ 1,340	$ 1,331	$ 1,305	$ (4,883)	$ 1,216	$ 1,392	
Site E/F Hauling cost of Ash 2.25 mile round trip							$ 2,822,723	$ 2,992,086	$ 3,171,612	$ 3,361,908	$ 3,563,623	$ 3,777,440	$ 4,004,087
Haul Road Maintenance							$ 53,529	$ 56,741	$ 60,145	$ 63,754	$ 67,579	$ 71,634	$ 75,932
Total							$ 2,876,252	$ 3,048,827	$ 3,231,757	$ 3,425,662	$ 3,631,202	$ 3,849,074	$ 4,080,018
Reduce by 50% for Site M			$ -	$ -	$ -	$ -	$ 1,438,126	$ 1,524,414	$ 1,615,878	$ 1,712,831	$ 1,815,601	$ 1,924,537	$ 2,040,009
Difference **PVRR**	**7.81%**	**$ (21,865,903)**											

Revenue Requirments Summary
Gypsum Disposal at Sterling Materials

			2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
													Start Phase II
Revenue Requirement													$ 40,000,000
Eligible Plant			$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 323,969,979	$ 353,969,979	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
Less Gypsum Plant			$ (133,110,000)	$ (133,110,000)	$ (133,110,000)	$ (133,110,000)	$ (133,110,000)	$ (173,110,000)	$ (203,110,000)	$ (209,140,021)	$ (209,140,021)	$ (209,140,021)	$ (169,140,021)
Revised Eligible Plant			$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 190,859,979
Less Accumulated Depreciation			$ (33,038,006)	$ (37,246,999)	$ (41,455,992)	$ (45,664,985)	$ (49,873,978)	$ (54,082,972)	$ (58,291,965)	$ (62,500,958)	$ (66,709,951)	$ (70,918,944)	$ (76,243,937)
Less Deferred Tax Balance			$ (12,937,683)	$ (14,585,925)	$ (16,234,167)	$ (17,882,408)	$ (19,530,650)	$ (21,178,892)	$ (22,827,133)	$ (24,475,375)	$ (26,123,617)	$ (27,771,858)	$ (29,857,126)
Environmental Compliance Rate Base			$ 104,884,290	$ 99,027,055	$ 93,169,820	$ 87,312,585	$ 81,455,351	$ 75,598,116	$ 69,740,881	$ 63,883,646	$ 58,026,411	$ 52,169,177	$ 84,758,916
Rate of Return			10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
Assumed Tons (1.155)		1,000,000	$ 11,505,807	$ 10,863,268	$ 10,220,729	$ 9,578,191	$ 8,935,652	$ 8,293,113	$ 7,650,575	$ 7,008,036	$ 6,365,497	$ 5,722,959	$ 9,298,053
86.7500% Cubic yards		867,500											
Operating Expenses			$ 28,573,949	$ 30,288,386	$ 32,105,689	$ 34,032,031	$ 36,073,952	$ 38,238,390	$ 40,532,693	$ 42,964,655	$ 45,542,534	$ 48,275,086	$ 51,171,591
less Gypsum to On-site Landfill			$ (13,362,811)	$ (14,164,579)	$ (15,014,454)	$ (15,915,321)	$ (16,870,241)	$ (17,882,455)	$ (18,955,402)	$ (20,092,727)	$ (21,298,290)	$ (22,576,188)	$ (23,930,759)
Gypsum to Sterling	**$**	**10.50**	$ 15,788,118	$ 16,735,405	$ 17,739,529	$ 18,803,901	$ 19,932,135	$ 21,128,063	$ 22,395,747	$ 23,739,492	$ 25,163,861	$ 26,673,693	$ 28,274,114
Net Operating			$ 30,999,256	$ 32,859,211	$ 34,830,764	$ 36,920,610	$ 39,135,847	$ 41,483,997	$ 43,973,037	$ 46,611,419	$ 49,408,105	$ 52,372,591	$ 55,514,946
Annual Depreciation			$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 5,324,993
Annual Property Tax Expense			$ 322,630	$ 367,985	$ 367,985	$ 367,985	$ 367,985	$ 367,985	$ 419,820	$ 458,696	$ 466,510	$ 466,510	$ 466,510
Total OE			$ 35,530,879	$ 37,436,190	$ 39,407,743	$ 41,497,588	$ 43,712,825	$ 46,060,976	$ 48,601,850	$ 51,279,108	$ 54,083,607	$ 57,048,094	$ 61,306,449
Total E(m) Gypsum to Sterling		$ 476,298,826	$ 47,036,686	$ 48,299,458	$ 49,628,472	$ 51,075,779	$ 52,648,477	$ 54,354,089	$ 56,252,425	$ 58,287,144	$ 60,449,105	$ 62,771,052	$ 70,604,502
Total E(m) - Project 30 (See below)		$ 555,782,375	$ 60,594,706	$ 61,145,021	$ 61,752,847	$ 62,469,712	$ 63,302,156	$ 69,590,749	$ 74,557,268	$ 76,324,534	$ 77,376,925	$ 78,576,175	$ 79,939,378
Difference	**PVRR**	**7.81% $ (79,483,549)**	$ (13,558,020)	$ (12,845,563)	$ (12,124,375)	$ (11,393,932)	$ (10,653,679)	$ (15,236,660)	$ (18,304,843)	$ (18,037,390)	$ (16,927,821)	$ (15,805,123)	$ (9,334,876)
Date			12/31/2020	12/31/2021	12/31/2022	12/31/2023	12/31/2024	12/31/2025	12/31/2026	12/31/2027	12/31/2028	12/31/2029	12/31/2030

Revenue Requirments Summary
2009 Amended Plan
Project 30 Ghent Landfill Phase I
See Exhibit B

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
						Start Phase III					
Revenue Requirement	$ 40,000,000					$ 40,000,000	$ 30,000,000	$ 6,030,021			
Eligible Plant	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 323,969,979	$ 353,969,979	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
Less Gypsum Plant	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Revised Eligible Plant	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 323,969,979	$ 353,969,979	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
Less Accumulated Depreciation	$ (48,317,917)	$ (56,240,679)	$ (64,163,440)	$ (72,086,202)	$ (80,008,964)	$ (89,047,726)	$ (98,923,488)	$ (108,967,487)	$ (119,011,486)	$ (129,055,485)	$ (139,099,485)
Less Deferred Tax Balance	$ (18,921,296)	$ (22,023,850)	$ (25,126,403)	$ (28,228,957)	$ (31,331,510)	$ (34,871,089)	$ (38,738,438)	$ (42,671,668)	$ (46,604,898)	$ (50,538,128)	$ (54,471,358)
Environmental Compliance Rate Base	$ 216,730,766	$ 205,705,451	$ 194,680,135	$ 183,654,820	$ 172,629,505	$ 200,051,164	$ 216,308,054	$ 208,360,845	$ 194,383,616	$ 180,406,387	$ 166,429,157
Rate of Return	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
	$ 23,775,365	$ 22,565,888	$ 21,356,411	$ 20,146,934	$ 18,937,457	$ 21,945,613	$ 23,728,993	$ 22,857,185	$ 21,323,883	$ 19,790,581	$ 18,257,279
Operating Expenses	$ 28,573,949.13	$ 30,288,386.07	$ 32,105,689.24	$ 34,032,030.59	$ 36,073,952.43	$ 38,238,389.57	$ 40,532,692.95	$ 42,964,654.53	$ 45,542,533.80	$ 48,275,085.83	$ 51,171,590.97
less Gypsum to On-site Landfill	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Gypsum to Sterling	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Net Operating	$ 28,573,949	$ 30,288,386	$ 32,105,689	$ 34,032,031	$ 36,073,952	$ 38,238,390	$ 40,532,693	$ 42,964,655	$ 45,542,534	$ 48,275,086	$ 51,171,591
Annual Depreciation	$ 7,922,762	$ 7,922,762	$ 7,922,762	$ 7,922,762	$ 7,922,762	$ 9,038,762	$ 9,875,762	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999
Annual Property Tax Expense	$ 322,630	$ 367,985	$ 367,985	$ 367,985	$ 367,985	$ 367,985	$ 419,820	$ 458,696	$ 466,510	$ 466,510	$ 466,510
Total OE	$ 36,819,341	$ 38,579,133	$ 40,396,436	$ 42,322,778	$ 44,364,700	$ 47,645,137	$ 50,828,274	$ 53,467,349	$ 56,053,043	$ 58,785,595	$ 61,682,100
Total E(m) Gypsum to On-site Landfill as Calculated	$ 60,594,706	$ 61,145,021	$ 61,752,847	$ 62,469,712	$ 63,302,156	$ 69,590,749	$ 74,557,268	$ 76,324,534	$ 77,376,925	$ 78,576,175	$ 79,939,378
Total E(m) Gypsum to On-site Landfill per KU											
Calculation Check Difference											
Site E/F Hauling cost of Ash 2.25 mile round trip	$ 4,244,332	$ 4,498,992	$ 4,768,931	$ 5,055,067	$ 5,358,371	$ 5,679,873	$ 6,020,666	$ 6,381,906	$ 6,764,820	$ 7,170,709	$ 7,600,952
Haul Road Maintenance	$ 80,488	$ 85,317	$ 90,436	$ 95,862	$ 101,614	$ 107,711	$ 114,174	$ 121,024	$ 128,285	$ 135,982	$ 144,141
Total	$ 4,324,820	$ 4,584,309	$ 4,859,367	$ 5,150,929	$ 5,459,985	$ 5,787,584	$ 6,134,839	$ 6,502,930	$ 6,893,105	$ 7,306,692	$ 7,745,093
Reduce by 50% for Site M	$ 2,162,410	$ 2,292,154	$ 2,429,684	$ 2,575,465	$ 2,729,993	$ 2,893,792	$ 3,067,420	$ 3,251,465	$ 3,446,553	$ 3,653,346	$ 3,872,547

Difference **PVRR** **7.81% $ (21,865,903)**

Revenue Requirments Summary
Gypsum Disposal at Sterling Materials

				2031	2032	2033	2034	2035	2036	2037	
Revenue Requirement				$ 40,000,000							
Eligible Plant				$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	
Less Gypsum Plant				$ (129,140,021)	$ (129,140,021)	$ (129,140,021)	$ (129,140,021)	$ (129,140,021)	$ (129,140,021)	$ (129,140,021)	
Revised Eligible Plant				$ 230,859,979	$ 230,859,979	$ 230,859,979	$ 230,859,979	$ 230,859,979	$ 230,859,979	$ 230,859,979	
Less Accumulated Depreciation				$ (82,684,930)	$ (89,125,923)	$ (95,566,916)	$ (102,007,909)	$ (108,448,902)	$ (114,889,895)	$ (121,330,888)	
Less Deferred Tax Balance				$ (32,379,419)	$ (34,901,711)	$ (37,424,004)	$ (39,946,297)	$ (42,468,590)	$ (44,990,883)	$ (47,513,176)	
Environmental Compliance Rate Base				$ 115,795,631	$ 106,832,345	$ 97,869,059	$ 88,905,773	$ 79,942,487	$ 70,979,202	$ 62,015,916	
Rate of Return				10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	
Assumed	Tons (1.155)	1,000,000		$ 12,702,781	$ 11,719,508	$ 10,736,236	$ 9,752,963	$ 8,769,691	$ 7,786,418	$ 6,803,146	
86.7500%	Cubic yards	867,500									
Operating Expenses				$ 54,241,886	$ 57,496,400	$ 60,946,184	$ 64,602,955	$ 68,479,132	$ 72,587,880	$ 76,943,153	
less Gypsum to On-site Landfill				$ (25,366,604)	$ (26,888,601)	$ (28,501,917)	$ (30,212,032)	$ (32,024,754)	$ (33,946,239)	$ (35,983,013)	
Gypsum to Sterling		**$ 10.50**		$ 29,970,561	$ 31,768,795	$ 33,674,922	$ 35,695,418	$ 37,837,143	$ 40,107,371	$ 42,513,814	
Net Operating				$ 58,845,843	$ 62,376,594	$ 66,119,189	$ 70,086,341	$ 74,291,521	$ 78,749,012	$ 83,473,953	
Annual Depreciation				$ 6,440,993	$ 6,440,993	$ 6,440,993	$ 6,440,993	$ 6,440,993	$ 6,440,993	$ 6,440,993	
Annual Property Tax Expense				$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	
Total OE				$ 65,753,346	$ 69,284,096	$ 73,026,692	$ 76,993,843	$ 81,199,024	$ 85,656,515	$ 90,381,456	
Total E(m) Gypsum to Sterling			$ 476,298,826	$ 78,456,126	$ 81,003,604	$ 83,762,928	$ 86,746,807	$ 89,968,715	$ 93,442,933	$ 97,184,602	$ 1,547,998,022
Total E(m) - Project 30 (See below)			$ 555,782,375	$ 81,476,372	$ 83,197,583	$ 85,114,065	$ 87,237,534	$ 89,580,409	$ 92,155,855	$ 94,977,826	$ 1,754,455,070
Difference	**PVRR**	**7.81%**	**$ (79,483,549)**	$ (3,020,245)	$ (2,193,978)	$ (1,351,137)	$ (490,727)	$ 388,306	$ 1,287,079	$ 2,206,776	$ (206,457,048)
Date				12/31/2031	12/31/2032	12/31/2033	12/31/2034	12/31/2035	12/31/2036	12/31/2037	
											$ (206,457,048)

Revenue Requirments Summary
2009 Amended Plan
Project 30 Ghent Landfill Phase I
See Exhibit B

				2031	2032	2033	2034	2035	2036	2037
Revenue Requirement										
Eligible Plant				$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
Less Gypsum Plant				$ -	$ -	$ -	$ -	$ -	$ -	$ -
Revised Eligible Plant				$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
Less Accumulated Depreciation				$ (149,143,484)	$ (159,187,483)	$ (169,231,482)	$ (179,275,482)	$ (189,319,481)	$ (199,363,480)	$ (209,407,479)
Less Deferred Tax Balance				$ (58,404,588)	$ (62,337,818)	$ (66,271,048)	$ (70,204,279)	$ (74,137,509)	$ (78,070,739)	$ (82,003,969)
Environmental Compliance Rate Base				$ 152,451,928	$ 138,474,699	$ 124,497,469	$ 110,520,240	$ 96,543,010	$ 82,565,781	$ 68,588,552
Rate of Return				10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
				$ 16,723,976	$ 15,190,674	$ 13,657,372	$ 12,124,070	$ 10,590,768	$ 9,057,466	$ 7,524,164
Operating Expenses				$ 54,241,886.43	$ 57,496,399.62	$ 60,946,183.60	$ 64,602,954.61	$ 68,479,131.89	$ 72,587,879.80	$ 76,943,152.59
less Gypsum to On-site Landfill				$ -	$ -	$ -	$ -	$ -	$ -	$ -
Gypsum to Sterling				$ -	$ -	$ -	$ -	$ -	$ -	$ -
Net Operating				$ 54,241,886	$ 57,496,400	$ 60,946,184	$ 64,602,955	$ 68,479,132	$ 72,587,880	$ 76,943,153
Annual Depreciation				$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999
Annual Property Tax Expense				$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510
Total OE				$ 64,752,395	$ 68,006,908	$ 71,456,692	$ 75,113,463	$ 78,989,641	$ 83,098,389	$ 87,453,661
Total E(m) Gypsum to On-site Landfill as Calculated				$ 81,476,372	$ 83,197,583	$ 85,114,065	$ 87,237,534	$ 89,580,409	$ 92,155,855	$ 94,977,826
Total E(m) Gypsum to On-site Landfill per KU										
Calculation Check Difference										
Site E/F	Hauling cost of Ash 2.25 mile round trip			$ 8,057,009	$ 8,540,429	$ 9,052,855	$ 9,596,026	$ 10,171,788	$ 10,782,095	$ 11,429,021
	Haul Road Maintenance			$ 152,790	$ 161,957	$ 171,675	$ 181,975	$ 192,894	$ 204,467	$ 216,735
Total				$ 8,209,799	$ 8,702,387	$ 9,224,530	$ 9,778,002	$ 10,364,682	$ 10,986,563	$ 11,645,756
Reduce by 50% for Site M				$ 4,104,899	$ 4,351,193	$ 4,612,265	$ 4,889,001	$ 5,182,341	$ 5,493,281	$ 5,822,878
Difference	**PVRR**	**7.81%**	**$ (21,865,903)**							

EXHIBIT E

GHENT LANDFILL (PHASE I)

Operating & Maintenance Costs ($)	2010	2011	2012	2013	2014	2015	2016	2017
Ground Water Sampling and Testing	14,045	14,888	15,781	16,728	17,731	18,795	19,923	21,118
Leachate Management	-	-	-	83,639	88,657	93,977	99,616	105,592
Surveying (As-builts)	16,292	17,270	18,306	19,404	20,569	21,803	23,111	24,497
Pump House Fly Ash and Bottom Ash Segregation	75,843	80,394	85,217	-	-	-	-	-
Dry Ash/Pyrites Handling System - Conveyor	-	-	-	2,161,234	2,290,908	2,428,363	2,574,065	2,728,509
Dry Gypsum Handling System	-	-	-	682,495	723,445	766,851	812,863	861,634
Leachate Pump House	15,169	16,079	17,043	18,066	19,150	20,299	21,517	22,808
Hauling Fly Ash and Bottom Ash to Landfill								
Loading	-	-	-	1,338,226	1,418,519	1,503,630	1,593,848	1,689,479
Phase 1 - 2.25 Mile Round Trip	-	-	-	2,822,723	2,992,087	3,171,612	3,361,909	3,563,623
Hauling Gypsum to Landfill								
Loading	-	-	-	1,746,384	1,851,167	1,962,237	2,079,972	2,204,770
Phase 1 - 2.25 Mile Round Trip	-	-	-	3,997,156	4,236,986	4,491,205	4,760,677	5,046,318
Landfilling Fly Ash and Bottom Ash	-	-	-	2,408,806	2,553,334	2,706,534	2,868,927	3,041,062
Landfilling Gypsum	-	-	-	3,143,492	3,332,101	3,532,027	3,743,949	3,968,586
Ash/Gypsum Placement QA/QC	-	-	-	54,198	57,450	60,897	64,551	68,424
Maintenance								
Landfills	-	-	-	301,101	319,167	338,317	358,616	380,133
Haul Roads	-	-	-	53,529	56,741	60,145	63,754	67,579
Dust Control	-	-	-	156,126	165,494	175,424	185,949	197,106
TOTAL	**121,349**	**128,630**	**136,348**	**19,003,308**	**20,143,507**	**21,352,117**	**22,633,244**	**23,991,239**

EXHIBIT F

GHENT LANDFILL (PHASE I)

Capital Expenditures ($ million)	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Total
Property Acquisition											
Disposal Site(s)	-	-	4.66	-	-	-	-	-	-	-	**4.66**
Overhead Electric Line(s)	-	-	0.03	-	-	-	-	-	-	-	**0.03**
Buffer Zones	-	-	-	-	2.37	-	-	-	-	-	**2.37**
Higher End House Acquisition	-	-	1.40	-	-	-	-	-	-	-	**1.40**
Engineering, Permits and Fees, and Construction Documents	0.46	2.00	-	-	-	-	-	-	-	-	**2.46**
Stream and Wetland Mitigation	-	-	4.14	-	-	-	-	-	-	-	**4.14**
Ground Water Monitoring System	-	0.27	-	-	-	-	-	-	-	-	**0.27**
Transmission Line Relocation Design, Engineering, and Construction	-	-	-	-	0.82	-	-	-	-	-	**0.82**
CCWD Relocation	-	-	0.12	-	-	-	-	-	-	-	**0.12**
Pump House Fly Ash and Bottom Ash Segregation	-	0.72	-	-	-	-	-	-	-	-	**0.72**
Dry Ash/Pyrites Handling System - Conveyor	-	-	16.29	27.08	38.93	-	-	-	-	-	**82.31**
Dry Gypsum Handling System	-	-	7.79	15.96	13.05	-	-	-	-	-	**36.80**
Gypsum Fines Project	-	0.74	6.30	6.30	-	-	-	-	-	-	**13.34**
Initial Site Preparation											
Clearing, Grubbing, and Site Preparation	-	-	-	0.62	0.65	0.69	-	-	-	-	**1.96**
Stripping and Stockpiling Soil	-	-	-	0.50	0.53	0.56	-	-	-	-	**1.58**
Hauling Topsoil - Phase 1 - 1.0 Mile Round Trip	-	-	-	0.19	0.20	0.21	-	-	-	-	**0.59**
Erosion and Sedimentation Controls	-	-	-	0.06	0.06	0.06	-	-	-	-	**0.18**
Sedimentation Pond	-	-	-	0.33	-	-	-	-	-	-	**0.33**
Collection Channels (Fabriform)	-	-	-	0.36	0.38	0.40	-	-	-	-	**1.15**
Diversion Channels (Riprap)	-	-	-	0.11	0.12	0.12	-	-	-	-	**0.35**
Liner Subgrade Preparation											
Scraping and Hauling - 0.25 Mile Round Trip	-	-	-	0.32	0.33	0.35	-	-	-	-	**1.01**
Excavating	-	-	-	0.15	0.16	0.17	-	-	-	-	**0.49**
Hauling Subgrade - Phase 1 - 1.0 Mile Round Trip	-	-	-	0.31	0.33	0.35	-	-	-	-	**0.99**
Spreading and Compacting Subgrade	-	-	-	0.49	0.52	0.55	-	-	-	-	**1.57**
Subgrade QA/QC	-	-	-	0.24	0.25	0.27	-	-	-	-	**0.76**
Gypsum Dewatering Facility Earthwork											
Excavating	-	-	-	0.73	-	-	-	-	-	-	**0.73**
Hauling Earth - 1.0 Mile Round Trip	-	-	-	1.53	-	-	-	-	-	-	**1.53**
Spreading and Compacting	-	-	-	1.21	-	-	-	-	-	-	**1.21**
Earthwork QA/QC	-	-	-	0.24	-	-	-	-	-	-	**0.24**

GHENT LANDFILL (PHASE I)

Capital Expenditures ($ million)	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Total
Haul Roads											
CCP Disposal On-Landfill Haul Road (60 Feet Wide)	-	-	-	-	0.61	0.05	0.05	0.05	0.05	0.06	**0.87**
CCP Disposal Off-Landfill Haul Road (60 Feet Wide)	-	-	-	0.30	1.03	-	-	-	-	-	**1.33**
Liner											
Landfill - Single Liner System	-	-	-	-	7.00	7.43	7.87	-	-	-	**22.30**
Liner System QA/QC	-	-	-	-	1.23	1.30	1.38	-	-	-	**3.90**
Leachate Collector Line	-	-	-	-	0.19	0.20	0.21	-	-	-	**0.60**
On-Landfill Leachate Trunk Line	-	-	-	-	0.08	0.08	0.09	-	-	-	**0.25**
Off-Landfill Leachate Trunk Line	-	-	-	-	0.07	-	-	-	-	-	**0.07**
Leachate Storage Pond	-	-	-	-	0.29	-	-	-	-	-	**0.29**
Leachate Pump House	-	-	-	-	0.09	-	-	-	-	-	**0.09**
Leachate Pipe Line	-	-	-	-	0.08	-	-	-	-	-	**0.08**
Underdrains - Trunk	-	-	-	-	0.17	0.18	0.19	-	-	-	**0.54**
Underdrains - Collector	-	-	-	-	0.11	0.12	0.12	-	-	-	**0.35**
Cap											
Intermediate Soil Cover	-	-	-	-	-	-	0.28	0.30	0.32	0.34	**1.24**
Cap System	-	-	-	-	-	-	0.22	0.23	0.25	0.26	**0.96**
Cap System QA/QC	-	-	-	-	-	-	0.03	0.03	0.03	0.03	**0.12**
Total	**0.46**	**3.72**	**40.73**	**57.01**	**69.65**	**13.10**	**10.44**	**0.62**	**0.65**	**0.69**	**197.07**
E.ON-US Overheads	0.02	0.13	1.43	2.00	2.44	0.46	0.37	0.02	0.02	0.02	**6.90**
Total with Overheads	**0.47**	**3.85**	**42.16**	**59.01**	**72.09**	**13.56**	**10.81**	**0.64**	**0.68**	**0.72**	**203.97**

EXHIBIT G

Revenue Requirments Summary
Gypsum Disposal at Sterling Materials

			2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Revenue Requirement													
Eligible Plant			$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 203,254,220	$ 203,969,979	$ 203,969,979	$ 248,969,979
Less Gypsum Plant			$ -	$ (14,090,000)	$ (40,060,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (98,110,000)
Revised Eligible Plant			$ 4,321,671	$ 32,388,846	$ 65,425,803	$ 124,467,356	$ 138,023,918	$ 148,831,953	$ 149,468,976	$ 150,144,220	$ 150,859,979	$ 150,859,979	$ 150,859,979
Less Accumulated Depreciation							$ (3,690,414)	$ (7,842,826)	$ (12,013,010)	$ (16,202,034)	$ (20,411,027)	$ (24,620,020)	$ (28,829,013)
Less Deferred Tax Balance							$ (528,683)	$ (2,857,926)	$ (4,921,730)	$ (6,731,945)	$ (8,301,165)	$ (9,641,200)	$ (11,289,441)
Environmental Compliance Rate Base			$ 4,321,671	$ 32,388,846	$ 65,425,803	$ 124,467,356	$ 133,804,821	$ 138,131,202	$ 132,534,236	$ 127,210,241	$ 122,147,788	$ 116,598,759	$ 110,741,525
Rate of Return			11.1%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
Assumed Tons (1.155)	1,000,000		$ 480,509	$ 3,553,056	$ 7,177,211	$ 13,654,069	$ 14,678,389	$ 15,152,993	$ 14,539,006	$ 13,954,963	$ 13,399,612	$ 12,790,884	$ 12,148,345
86.7500% Cubic yards	867,500												
Operating Expenses			$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,556
less Gypsum to On-site Landfill							$ (8,887,032)	$ (9,420,254)	$ (9,985,469)	$ (10,584,598)	$ (11,219,674)	$ (11,892,854)	$ (12,606,425)
Gypsum to Sterling	**$ 9.00**						$ 9,000,000	$ 9,540,000	$ 10,112,400	$ 10,719,144	$ 11,362,293	$ 12,044,030	$ 12,766,672
Net Operating			$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,116,276	$ 20,263,253	$ 21,479,048	$ 22,767,790	$ 24,133,858	$ 25,581,889	$ 27,116,803
Annual Depreciation							$ 3,690,414	$ 4,152,411	$ 4,170,184	$ 4,189,024	$ 4,208,993	$ 4,208,993	$ 4,208,993
Annual Property Tax Expense				$ 6,483	$ 69,718	$ 158,229	$ 266,366	$ 279,017	$ 286,798	$ 279,274	$ 271,751	$ 264,317	$ 264,317
Total OE			$ 84,800	$ 127,832	$ 198,348	$ 294,577	$ 23,073,056	$ 24,694,681	$ 25,936,030	$ 27,236,088	$ 28,614,602	$ 30,055,199	$ 31,590,112
Total E(m) Gypsum to Sterling		$ 453,492,164	$ 565,309	$ 3,680,888	$ 7,375,559	$ 13,948,646	$ 37,751,445	$ 39,847,674	$ 40,475,036	$ 41,191,051	$ 42,014,214	$ 42,846,083	$ 43,738,457
Total E(m) - Project 30 (See below)		$ 555,782,375	$ 565,309	$ 5,226,225	$ 11,769,378	$ 19,773,528	$ 44,705,239	$ 46,600,208	$ 46,976,843	$ 47,458,553	$ 48,044,547	$ 48,653,648	$ 55,312,476
Difference **PVRR**	**7.81%**	**$ (102,290,212)**	$ -	$ (1,545,337)	$ (4,393,819)	$ (5,824,882)	$ (6,953,794)	$ (6,752,534)	$ (6,501,807)	$ (6,267,502)	$ (6,030,333)	$ (5,807,565)	$ (11,574,019)
Date			12/31/2009	12/31/2010	12/31/2011	12/31/2012	12/31/2013	12/31/2014	12/31/2015	12/31/2016	12/31/2017	12/31/2018	12/31/2019

Revenue Requirments Summary
2009 Amended Plan
Project 30 Ghent Landfill Phase I
See Exhibit B

			2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
													Start Phase II
Revenue Requirement													$ 40,000,000
Eligible Plant			$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 203,254,220	$ 203,969,979	$ 203,969,979	$ 248,969,979
Less Gypsum Plant			$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Revised Eligible Plant			$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 203,254,220	$ 203,969,979	$ 203,969,979	$ 248,969,979
Less Accumulated Depreciation							$ (5,110,443)	$ (10,744,623)	$ (16,396,576)	$ (22,067,369)	$ (27,758,131)	$ (33,448,893)	$ (40,395,155)
Less Deferred Tax Balance							$ (732,114)	$ (3,915,341)	$ (6,717,677)	$ (9,168,992)	$ (11,289,232)	$ (13,098,586)	$ (15,818,743)
Environmental Compliance Rate Base			$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 185,291,361	$ 187,281,989	$ 179,464,723	$ 172,017,859	$ 164,922,616	$ 157,422,500	$ 192,756,081
Rate of Return			11.1%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
			$ 480,509	$ 5,098,729	$ 11,571,793	$ 19,480,236	$ 20,326,462	$ 20,544,834	$ 19,687,280	$ 18,870,359	$ 18,092,011	$ 17,269,248	$ 21,145,342
Operating Expenses			$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,555.78
less Gypsum to On-site Landfill							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Gypsum to Sterling							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Net Operating			$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,556
Annual Depreciation							$ 5,110,443	$ 5,634,180	$ 5,651,953	$ 5,670,793	$ 5,690,762	$ 5,690,762	$ 6,946,262
Annual Property Tax Expense				$ 6,483	$ 69,718	$ 158,229	$ 266,366	$ 279,017	$ 286,798	$ 279,274	$ 271,751	$ 264,317	$ 264,317
Total OE			$ 84,800	$ 127,832	$ 198,348	$ 294,577	$ 24,380,117	$ 26,056,704	$ 27,290,868	$ 28,583,311	$ 29,953,752	$ 31,385,792	$ 34,167,134
Total E(m) Gypsum to On-site Landfill as Calculated			$ 565,309	$ 5,226,561	$ 11,770,141	$ 19,774,813	$ 44,706,579	$ 46,601,539	$ 46,978,148	$ 47,453,670	$ 48,045,763	$ 48,655,040	$ 55,312,476
Total E(m) Gypsum to On-site Landfill per KU			$ 565,309	$ 5,226,225	$ 11,769,378	$ 19,773,528	$ 44,705,239	$ 46,600,208	$ 46,976,843	$ 47,458,553	$ 48,044,547	$ 48,653,648	
Calculation Check Difference			$ -	$ 336	$ 763	$ 1,285	$ 1,340	$ 1,331	$ 1,305	$ (4,883)	$ 1,216	$ 1,392	
Site E/F Hauling cost of Ash 2.25 mile round trip							$ 2,822,723	$ 2,992,086	$ 3,171,612	$ 3,361,908	$ 3,563,623	$ 3,777,440	$ 4,004,087
Haul Road Maintenance							$ 53,529	$ 56,741	$ 60,145	$ 63,754	$ 67,579	$ 71,634	$ 75,932
Total							$ 2,876,252	$ 3,048,827	$ 3,231,757	$ 3,425,662	$ 3,631,202	$ 3,849,074	$ 4,080,018
Reduce by 50% for Site M			$ -	$ -	$ -	$ -	$ 1,438,126	$ 1,524,414	$ 1,615,878	$ 1,712,831	$ 1,815,601	$ 1,924,537	$ 2,040,009
Difference **PVRR**	**7.81%**	**$ (21,865,903)**											

Revenue Requirments Summary
Gypsum Disposal at Sterling Materials

			2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
													Start Phase II
Revenue Requirement													$ 40,000,000
Eligible Plant			$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 323,969,979	$ 353,969,979	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
Less Gypsum Plant			$ (133,110,000)	$ (133,110,000)	$ (133,110,000)	$ (133,110,000)	$ (133,110,000)	$ (173,110,000)	$ (203,110,000)	$ (209,140,021)	$ (209,140,021)	$ (209,140,021)	$ (169,140,021)
Revised Eligible Plant			$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 190,859,979
Less Accumulated Depreciation			$ (33,038,006)	$ (37,246,999)	$ (41,455,992)	$ (45,664,985)	$ (49,873,978)	$ (54,082,972)	$ (58,291,965)	$ (62,500,958)	$ (66,709,951)	$ (70,918,944)	$ (76,243,937)
Less Deferred Tax Balance			$ (12,937,683)	$ (14,585,925)	$ (16,234,167)	$ (17,882,408)	$ (19,530,650)	$ (21,178,892)	$ (22,827,133)	$ (24,475,375)	$ (26,123,617)	$ (27,771,858)	$ (29,857,126)
Environmental Compliance Rate Base			$ 104,884,290	$ 99,027,055	$ 93,169,820	$ 87,312,585	$ 81,455,351	$ 75,598,116	$ 69,740,881	$ 63,883,646	$ 58,026,411	$ 52,169,177	$ 84,758,916
Rate of Return			10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
Assumed	Tons (1.155)	1,000,000	$ 11,505,807	$ 10,863,268	$ 10,220,729	$ 9,578,191	$ 8,935,652	$ 8,293,113	$ 7,650,575	$ 7,008,036	$ 6,365,497	$ 5,722,959	$ 9,298,053
86.7500%	Cubic yards	867,500											
Operating Expenses			$ 28,573,949	$ 30,288,386	$ 32,105,689	$ 34,032,031	$ 36,073,952	$ 38,238,390	$ 40,532,693	$ 42,964,655	$ 45,542,534	$ 48,275,086	$ 51,171,591
less Gypsum to On-site Landfill			$ (13,362,811)	$ (14,164,579)	$ (15,014,454)	$ (15,915,321)	$ (16,870,241)	$ (17,882,455)	$ (18,955,402)	$ (20,092,727)	$ (21,298,290)	$ (22,576,188)	$ (23,930,759)
Gypsum to Sterling	**$ 9.00**		$ 13,532,672	$ 14,344,633	$ 15,205,311	$ 16,117,629	$ 17,084,687	$ 18,109,768	$ 19,196,354	$ 20,348,136	$ 21,569,024	$ 22,863,165	$ 24,234,955
Net Operating			$ 28,743,811	$ 30,468,439	$ 32,296,546	$ 34,234,338	$ 36,288,399	$ 38,465,703	$ 40,773,645	$ 43,220,064	$ 45,813,267	$ 48,562,063	$ 51,475,787
Annual Depreciation			$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 5,324,993
Annual Property Tax Expense			$ 322,630	$ 367,985	$ 367,985	$ 367,985	$ 367,985	$ 367,985	$ 419,820	$ 458,696	$ 466,510	$ 466,510	$ 466,510
Total OE			$ 33,275,434	$ 35,045,418	$ 36,873,524	$ 38,811,317	$ 40,865,377	$ 43,042,681	$ 45,402,458	$ 47,887,752	$ 50,488,770	$ 53,237,566	$ 57,267,290
Total E(m) Gypsum to Sterling		$ 453,492,164	$ 44,781,241	$ 45,908,686	$ 47,094,253	$ 48,389,508	$ 49,801,029	$ 51,335,794	$ 53,053,032	$ 54,895,788	$ 56,854,267	$ 58,960,525	$ 66,565,343
Total E(m) - Project 30 (See below)		$ 555,782,375	$ 60,594,706	$ 61,145,021	$ 61,752,847	$ 62,469,712	$ 63,302,156	$ 69,590,749	$ 74,557,268	$ 76,324,534	$ 77,376,925	$ 78,576,175	$ 79,939,378
Difference	**PVRR**	**7.81% $ (102,290,212)**	$ (15,813,466)	$ (15,236,335)	$ (14,658,594)	$ (14,080,204)	$ (13,501,127)	$ (18,254,955)	$ (21,504,236)	$ (21,428,746)	$ (20,522,658)	$ (19,615,651)	$ (13,374,035)
Date			12/31/2020	12/31/2021	12/31/2022	12/31/2023	12/31/2024	12/31/2025	12/31/2026	12/31/2027	12/31/2028	12/31/2029	12/31/2030

Revenue Requirments Summary
2009 Amended Plan
Project 30 Ghent Landfill Phase I
See Exhibit B

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
						Start Phase III					
Revenue Requirement	$ 40,000,000					$ 40,000,000	$ 30,000,000	$ 6,030,021			
Eligible Plant	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 323,969,979	$ 353,969,979	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
Less Gypsum Plant	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Revised Eligible Plant	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 323,969,979	$ 353,969,979	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
Less Accumulated Depreciation	$ (48,317,917)	$ (56,240,679)	$ (64,163,440)	$ (72,086,202)	$ (80,008,964)	$ (89,047,726)	$ (98,923,488)	$ (108,967,487)	$ (119,011,486)	$ (129,055,485)	$ (139,099,485)
Less Deferred Tax Balance	$ (18,921,296)	$ (22,023,850)	$ (25,126,403)	$ (28,228,957)	$ (31,331,510)	$ (34,871,089)	$ (38,738,438)	$ (42,671,668)	$ (46,604,898)	$ (50,538,128)	$ (54,471,358)
Environmental Compliance Rate Base	$ 216,730,766	$ 205,705,451	$ 194,680,135	$ 183,654,820	$ 172,629,505	$ 200,051,164	$ 216,308,054	$ 208,360,845	$ 194,383,616	$ 180,406,387	$ 166,429,157
Rate of Return	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
	$ 23,775,365	$ 22,565,888	$ 21,356,411	$ 20,146,934	$ 18,937,457	$ 21,945,613	$ 23,728,993	$ 22,857,185	$ 21,323,883	$ 19,790,581	$ 18,257,279
Operating Expenses	$ 28,573,949.13	$ 30,288,386.07	$ 32,105,689.24	$ 34,032,030.59	$ 36,073,952.43	$ 38,238,389.57	$ 40,532,692.95	$ 42,964,654.53	$ 45,542,533.80	$ 48,275,085.83	$ 51,171,590.97
less Gypsum to On-site Landfill	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Gypsum to Sterling	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Net Operating	$ 28,573,949	$ 30,288,386	$ 32,105,689	$ 34,032,031	$ 36,073,952	$ 38,238,390	$ 40,532,693	$ 42,964,655	$ 45,542,534	$ 48,275,086	$ 51,171,591
Annual Depreciation	$ 7,922,762	$ 7,922,762	$ 7,922,762	$ 7,922,762	$ 7,922,762	$ 9,038,762	$ 9,875,762	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999
Annual Property Tax Expense	$ 322,630	$ 367,985	$ 367,985	$ 367,985	$ 367,985	$ 367,985	$ 419,820	$ 458,696	$ 466,510	$ 466,510	$ 466,510
Total OE	$ 36,819,341	$ 38,579,133	$ 40,396,436	$ 42,322,778	$ 44,364,700	$ 47,645,137	$ 50,828,274	$ 53,467,349	$ 56,053,043	$ 58,785,595	$ 61,682,100
Total E(m) Gypsum to On-site Landfill as Calculated	$ 60,594,706	$ 61,145,021	$ 61,752,847	$ 62,469,712	$ 63,302,156	$ 69,590,749	$ 74,557,268	$ 76,324,534	$ 77,376,925	$ 78,576,175	$ 79,939,378
Total E(m) Gypsum to On-site Landfill per KU											
Calculation Check Difference											
Site E/F Hauling cost of Ash 2.25 mile round trip	$ 4,244,332	$ 4,498,992	$ 4,768,931	$ 5,055,067	$ 5,358,371	$ 5,679,873	$ 6,020,666	$ 6,381,906	$ 6,764,820	$ 7,170,709	$ 7,600,952
Haul Road Maintenance	$ 80,488	$ 85,317	$ 90,436	$ 95,862	$ 101,614	$ 107,711	$ 114,174	$ 121,024	$ 128,285	$ 135,982	$ 144,141
Total	$ 4,324,820	$ 4,584,309	$ 4,859,367	$ 5,150,929	$ 5,459,985	$ 5,787,584	$ 6,134,839	$ 6,502,930	$ 6,893,105	$ 7,306,692	$ 7,745,093
Reduce by 50% for Site M	$ 2,162,410	$ 2,292,154	$ 2,429,684	$ 2,575,465	$ 2,729,993	$ 2,893,792	$ 3,067,420	$ 3,251,465	$ 3,446,553	$ 3,653,346	$ 3,872,547

Difference **PVRR** **7.81% $ (21,865,903)**

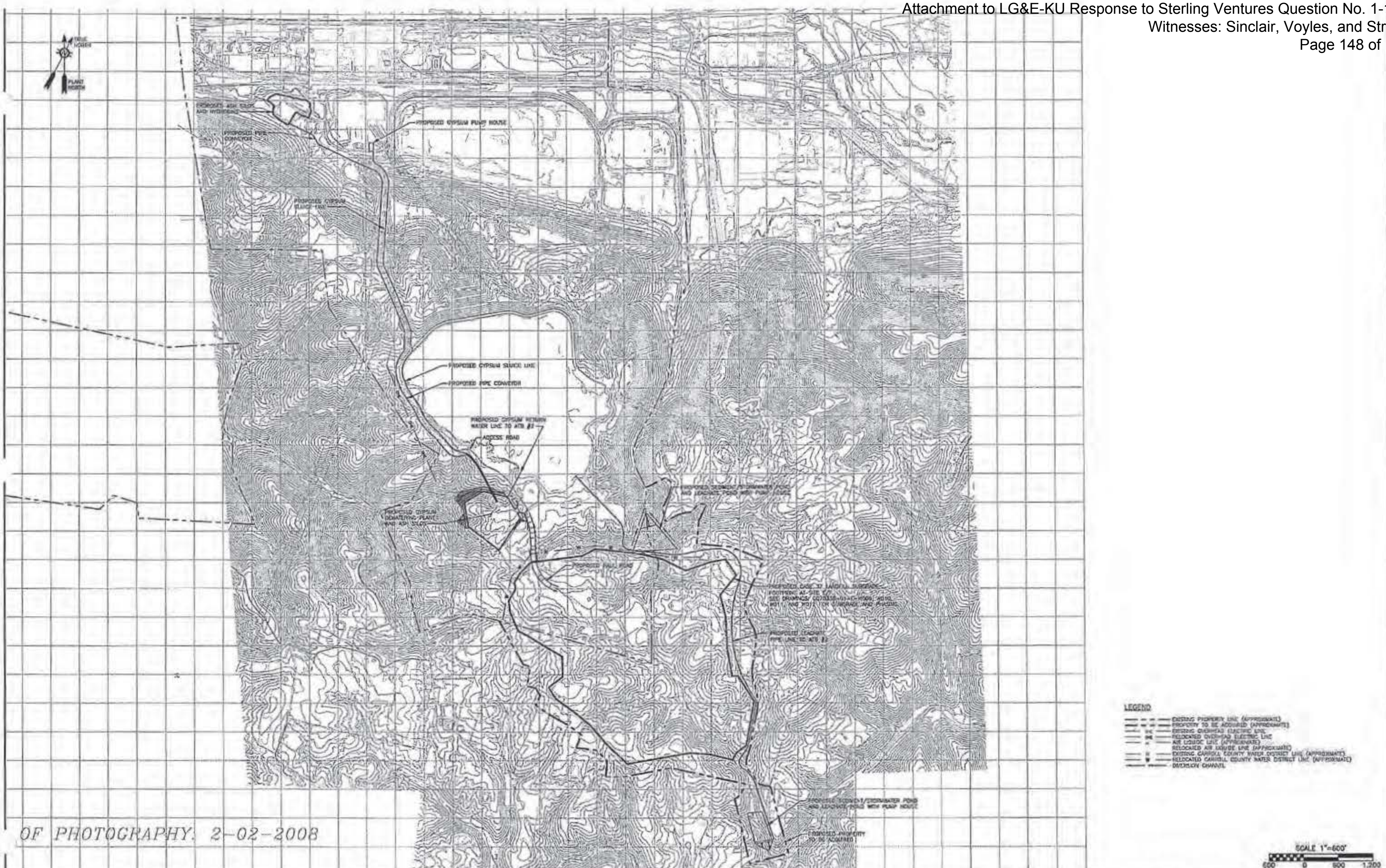
Revenue Requirments Summary
Gypsum Disposal at Sterling Materials

			2031	2032	2033	2034	2035	2036	2037	
Revenue Requirement			$ 40,000,000							
Eligible Plant			$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	
Less Gypsum Plant			$ (129,140,021)	$ (129,140,021)	$ (129,140,021)	$ (129,140,021)	$ (129,140,021)	$ (129,140,021)	$ (129,140,021)	
Revised Eligible Plant			$ 230,859,979	$ 230,859,979	$ 230,859,979	$ 230,859,979	$ 230,859,979	$ 230,859,979	$ 230,859,979	
Less Accumulated Depreciation			$ (82,684,930)	$ (89,125,923)	$ (95,566,916)	$ (102,007,909)	$ (108,448,902)	$ (114,889,895)	$ (121,330,888)	
Less Deferred Tax Balance			$ (32,379,419)	$ (34,901,711)	$ (37,424,004)	$ (39,946,297)	$ (42,468,590)	$ (44,990,883)	$ (47,513,176)	
Environmental Compliance Rate Base			$ 115,795,631	$ 106,832,345	$ 97,869,059	$ 88,905,773	$ 79,942,487	$ 70,979,202	$ 62,015,916	
Rate of Return			10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	
Assumed	Tons (1.155)	1,000,000	$ 12,702,781	$ 11,719,508	$ 10,736,236	$ 9,752,963	$ 8,769,691	$ 7,786,418	$ 6,803,146	
86.7500%	Cubic yards	867,500								
Operating Expenses			$ 54,241,886	$ 57,496,400	$ 60,946,184	$ 64,602,955	$ 68,479,132	$ 72,587,880	$ 76,943,153	
less Gypsum to On-site Landfill			$ (25,366,604)	$ (26,888,601)	$ (28,501,917)	$ (30,212,032)	$ (32,024,754)	$ (33,946,239)	$ (35,983,013)	
Gypsum to Sterling		**$ 9.00**	$ 25,689,052	$ 27,230,396	$ 28,864,219	$ 30,596,072	$ 32,431,837	$ 34,377,747	$ 36,440,412	
Net Operating			$ 54,564,334	$ 57,838,194	$ 61,308,486	$ 64,986,995	$ 68,886,215	$ 73,019,388	$ 77,400,551	
Annual Depreciation			$ 6,440,993	$ 6,440,993	$ 6,440,993	$ 6,440,993	$ 6,440,993	$ 6,440,993	$ 6,440,993	
Annual Property Tax Expense			$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	
Total OE			$ 61,471,837	$ 64,745,697	$ 68,215,989	$ 71,894,498	$ 75,793,718	$ 79,926,890	$ 84,308,054	
Total E(m) Gypsum to Sterling		$ 453,492,164	$ 74,174,618	$ 76,465,205	$ 78,952,224	$ 81,647,461	$ 84,563,408	$ 87,713,309	$ 91,111,200	$ 1,465,701,254
Total E(m) - Project 30 (See below)		$ 555,782,375	$ 81,476,372	$ 83,197,583	$ 85,114,065	$ 87,237,534	$ 89,580,409	$ 92,155,855	$ 94,977,826	$ 1,754,455,070
Difference	**PVRR**	**7.81% $ (102,290,212)**	$ (7,301,754)	$ (6,732,378)	$ (6,161,840)	$ (5,590,073)	$ (5,017,001)	$ (4,442,546)	$ (3,866,626)	$ (288,753,816)
Date			12/31/2031	12/31/2032	12/31/2033	12/31/2034	12/31/2035	12/31/2036	12/31/2037	
										$ (288,753,816)

Revenue Requirments Summary
2009 Amended Plan
Project 30 Ghent Landfill Phase I
See Exhibit B

			2031	2032	2033	2034	2035	2036	2037
Revenue Requirement									
Eligible Plant			$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
Less Gypsum Plant			$ -	$ -	$ -	$ -	$ -	$ -	$ -
Revised Eligible Plant			$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
Less Accumulated Depreciation			$ (149,143,484)	$ (159,187,483)	$ (169,231,482)	$ (179,275,482)	$ (189,319,481)	$ (199,363,480)	$ (209,407,479)
Less Deferred Tax Balance			$ (58,404,588)	$ (62,337,818)	$ (66,271,048)	$ (70,204,279)	$ (74,137,509)	$ (78,070,739)	$ (82,003,969)
Environmental Compliance Rate Base			$ 152,451,928	$ 138,474,699	$ 124,497,469	$ 110,520,240	$ 96,543,010	$ 82,565,781	$ 68,588,552
Rate of Return			10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
			$ 16,723,976	$ 15,190,674	$ 13,657,372	$ 12,124,070	$ 10,590,768	$ 9,057,466	$ 7,524,164
Operating Expenses			$ 54,241,886.43	$ 57,496,399.62	$ 60,946,183.60	$ 64,602,954.61	$ 68,479,131.89	$ 72,587,879.80	$ 76,943,152.59
less Gypsum to On-site Landfill			$ -	$ -	$ -	$ -	$ -	$ -	$ -
Gypsum to Sterling			$ -	$ -	$ -	$ -	$ -	$ -	$ -
Net Operating			$ 54,241,886	$ 57,496,400	$ 60,946,184	$ 64,602,955	$ 68,479,132	$ 72,587,880	$ 76,943,153
Annual Depreciation			$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999
Annual Property Tax Expense			$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510
Total OE			$ 64,752,395	$ 68,006,908	$ 71,456,692	$ 75,113,463	$ 78,989,641	$ 83,098,389	$ 87,453,661
Total E(m) Gypsum to On-site Landfill as Calculated			$ 81,476,372	$ 83,197,583	$ 85,114,065	$ 87,237,534	$ 89,580,409	$ 92,155,855	$ 94,977,826
Total E(m) Gypsum to On-site Landfill per KU									
Calculation Check Difference									
Site E/F	Hauling cost of Ash 2.25 mile round trip		$ 8,057,009	$ 8,540,429	$ 9,052,855	$ 9,596,026	$ 10,171,788	$ 10,782,095	$ 11,429,021
	Haul Road Maintenance		$ 152,790	$ 161,957	$ 171,675	$ 181,975	$ 192,894	$ 204,467	$ 216,735
Total			$ 8,209,799	$ 8,702,387	$ 9,224,530	$ 9,778,002	$ 10,364,682	$ 10,986,563	$ 11,645,756
Reduce by 50% for Site M			$ 4,104,899	$ 4,351,193	$ 4,612,265	$ 4,889,001	$ 5,182,341	$ 5,493,281	$ 5,822,878
Difference	**PVRR**	**7.81% $ (21,865,903)**							

EXHIBIT H



REV.	DATE	PREPARED	APPROVED	PURPOSE
A				Original Drawing Release

SCALE 1"=600'

PROJECT NUMBER

PROJECT NO./DASH NO. 0070338-01

DRAWING NO. W040

ASH POND AND LANDFILL PROJECT
FINAL CONCEPTUAL DESIGN
CASE 37 - OVERVIEW

Kentucky Utilities Company

From: John Walters(johnwalters@sterlingventures.com)
To: Smith, Timothy (Fuels)
CC: Joyce, Jeff; Pfeiffer, Caryl; Tapp Sr., Kenny (Electric); Gilbert, Bill G.; Dotson, Mike; Puckett, Paul
BCC:
Subject: RE: Ghent Gyspum Disposal
Sent: 10/10/2011 01:35:47 PM -0400 (EDT)
Attachments: LGE - KU Sterling Materials.pdf;

Tim
I just found out that you have moved over to the Trimble plant. It was my understanding that meetings were being set up at LG&E to discuss the attached the week of September 19th and /or the week of September 26th. Do you know the status of the discussion on Gypsum storage, and who is taking over for you regarding this at Ghent?
Thanks
John

From: John Walters
Sent: Tuesday, September 13, 2011 5:15 PM
To: timothy.smith@lge-ku.com; 'jeff.joyce@lge-ku.com'; 'caryl.pfeiffer@lge-ku.com'; 'kenny.tapp@lge-ku.com'; 'bill.gilbert@lge-ku.com'; 'mike.dotson@lge-ku.com'; 'paul.puckett@lge-ku.com'
Cc: Alex Boone
Subject: Ghent Gyspum Disposal
Please see attached

John W. Walters, Jr.
Sterling Ventures, LLC
376 South Broadway
Lexington, KY 40508
Phone (859) 259-9600
Cell 859-621-3990
Fax (859) 259-9601
johnwalters@sterlingventures.com

STERLING
VENTURES

September 13, 2011

Mr. Jeff Joyce
Mr. Timothy Smith
LG&E and KU-Ghent Station
9485 HWY 42 East
Ghent, KY 41045

Ms. Caryl Pfeiffer VIA E-mail
Mr. Kenny Tapp
Mr. Mike Dotson
Mr. Bill Gilbert
Mr. Paul Puckett
LG&E and KU
220 West Main Street
P.O. Box 32010
Louisville, KY 40202

Re: FGD Gypsum Disposal - Ghent Generating Station

Dear Ms. Pfeiffer and Gentlemen:

We have recently met with Tim Smith at Ghent Station to renew discussions concerning the possibility of Sterling Materials disposing of excess FGD Gypsum from the gypsum stacking facility at the Ghent Generating Station. We were unable to reach an agreement last year on gypsum disposal, presumably based on our proposed pricing.

Our pricing was in part based upon a requirement for a minimum tonnage of gypsum in order to cover the cost of Sterling having to install a gypsum access shaft to access our underground mine. The gypsum access shaft is preferable to trucking the gypsum underground, which we considered cost prohibitive. We proposed to Tim that if Ghent was interested in paying for the cost of the gypsum access shaft (which we estimated to be approximately $650,000) we would be willing to enter into an agreement that would give Ghent the right to dispose of its stacking pond gypsum in Sterling's mine. LGE/KU would be responsible for all loading and trucking fees. Sterling's charge in this scenario would be $5.50 per ton, subject to the terms of a final agreement. The $5.50 would be reduced by $1.00 for a period of 18 months in order to encourage early gypsum disposal, and allow you to recoup the cost of the gypsum access shaft.

As we discussed last year, Sterling is interested in not only handling the initial 1,500,000 tons of gypsum from the stacking facility, but also in receiving 100% of Ghent's excess FGD

gypsum for the life of the power plant. Attached is a comparative analysis of the PVRR cost difference between your current plan of placing all CCP's in a new landfill, and placing all gypsum at Sterling, with only ash going into your new landfill. The attached comparative analysis is based upon the capital construction cost and O&M cost you provided to the Kentucky Public Service Commission. Our attached analysis indicates that disposal of gypsum at Sterling could be the least cost PVRR alternative by at least $79,000,000, and possibly over $100,000,000 if scrubber limestone is purchased from Sterling and backhauled to the plant.

Obviously, we have necessarily made some assumptions in the attached comparative analysis, and we would like to meet with you again to discuss our analysis and assumptions, and to answer any questions you may have. We believe there are significant savings to you and your customers as reflected in the attached.

In addition, as we have previously discussed, we also have an underground limestone mine in Jessamine County near E.W. Brown. We met last week with Ron Gruzesky at The Kentucky Division of Solid Waste, and, based on that meeting, are planning to submit an application to permit our Jessamine County mine as a special waste landfill to receive all CCPs. Hopefully, there is the possibility of significant savings to you at Brown as well.

When you have a chance, give me or John Walters a call and we can discuss the above, and plan and how to move forward.

Sincerely,

Samuel A.B. Boone

GHENT STATION ALTERNATIVE FOR CCP/GYPSUM DISPOSAL

Background

Sterling Materials is an active underground limestone mine located in Verona, Kentucky, approximately 20 miles from Kentucky Utilities Company's Ghent Station. Sterling currently mines between 1,000,000 and 1,600,000 tons of limestone per year, and has been in operation since 2000.

In addition to producing limestone for the general aggregate construction market, Sterling also mines high calcium limestone for Mississippi Lime Company for use in Mississippi Lime's kiln located on Sterling's property. This high calcium limestone is also suitable for use as scrubber stone in Ghent's limestone FGD scrubber system.

In November 2010, Sterling obtained a Special Waste Permit from the Kentucky Department of Environmental Protection, Division of Waste Management allowing disposal of FGD gypsum in Sterling's mine.

KU has proposed building a new landfill at Ghent in three phases for an estimated total cost of $360,000,000 to handle the plant's three coal combustion by-products ("CCPs") through 2037[1]. KU forecasted the following wet storage CCP production volumes for Ghent Station (Cubic Yards):

Year	Fly Ash	Bottom Ash	Gypsum
2009	540,000	140,000	880,000
2010	550,000	150,000	1,090,000
2011	580,000	150,000	1,120,000
2012	550,000	150,000	1,060,000
2013	550,000	150,000	1,090,000

Source: Coal Combustion Byproduct Plan for Ghent Station dated June 2009 (the "Ghent CCP Plan" attached as Exhibit A)

Ghent's FGD gypsum is currently placed in a wet gypsum stacking pond. Ghent also has a contract to supply CertainTeed, Inc. with gypsum, and KU has estimated that CertainTeed will purchase approximately 222,000 cubic yards per year of gypsum from Ghent. As a result, Ghent will be required to continue diverting a portion of its gypsum production to the gypsum stacking pond.

The Ghent CCP Plan outlines KU's comparative analysis of the various alternatives to reach the least cost PVRR of disposing of Ghent's CCPs. One of the alternatives considered was off-site disposal at Valley View Landfill near Sulfer, Kentucky, approximately 25 miles from Ghent Station.[2] Disposal at Valley View was however dismissed because of the high cost of loading, hauling and landfill tipping fees.[3] Although, KU has redacted from public view the cost associated with the Valley View disposal alternative, based on

[1] Phase I cost thru 2018 of $203,969,979 as set forth in Revenue Requirement Summary for Project 30 – Ghent Landfill Phase I attached as Exhibit B. Total project capital cost estimated to be $360,000,000 per direct testimony of John Voyles before the Kentucky Public Service Commission in Case No. 2009-00197 attached as Exhibit C.
[2] Ghent CCP Plan, footnote 14, page 10.
[3] Supra at page 19.

other information contained in information provided to the KY PSC, it is estimated that the projected cost for disposal at Valley View in 2009 was approximately $29.65 per ton.[4]

Alternative Proposal for Gypsum Disposal at Sterling Materials' Mine

Sterling Materials is proposing that Ghent send all of its gypsum production (net of sales CertainTeed) to Sterling mine for disposal, with Ghent's ash being disposed of in either the new landfill as proposed on Site E/F, or in a new landfill located at Site M as considered by Case 14/28 in the Ghent CCP Plan (See page 18-19). Sterling estimates that the PVRR cost of this alternative is at least $79,000,000 less than KU's proposal for a new landfill at Site E/F, as set forth in Exhibit D.

Assumptions in Exhibit D analysis

1. Total price for loading, hauling and fees to Sterling Materials of $10.95 in 2013.
2. Net CCP production of approximately 868,000 cubic yards (1,090,000 – 222,000 to CertainTeed).
3. Cubic yards to ton conversion factor – cy x 1.155 (based on Trans Ash conversion assumption of 1.3 MCY equals 1.5 million tons as hauled - see page 10 of Ghent CCP Plan).
4. Reduce Phase I construction cost by $53,110,000[5] by continuing to place gypsum temporarily in existing gypsum stacking pond until shipment to Sterling.
   - Dry Gypsum Handling System $36,800,000
   - Gypsum Fines Project $12,600,000
   - Gypsum Dewatering Facility Earthwork $ 3,710,000
5. Phase III landfill construction cost eliminated. Phase II construction delayed from 2018 to 2030.
   - Phase I capacity – 14.7 MCY (See Ghent CCP Plan page 12)
   - Ash Production – 700,000 MCY (See Ghent CCP Plan page 7)
   - Phase I life until full – 21 years
6. Total Phase II and III construction costs - $156,030,021 (see Footnote 1)
   - Phase II construction cost - $80,000,000
   - Phase III construction cost - $76,030,021
7. Eliminate following Ghent Landfill Operating Expenses (See Ghent Landfill Operating Expenses - Phase I attached as Exhibit F)
   - Dry Gypsum Handling System
   - Hauling Gypsum to Landfill
     - Loading
     - Phase I-2.25 mile round trip
     - Landfilling Gypsum
8. Continue 2018 Annual Depreciation Rate of 2.7899% on Eligible Capital through 2037
9. Continue 2018 Property Tax Expense Rate of .1259% on Eligible Capital through 2037
10. Apply KU O&M Escalation Rate of 6% (See Ghent CCP Plan page 22)

[4] Total beneficial reuse cost of approximately $8,900,000 for 1,500,000 tons of Gypsum to Trans Ash, Inc. equals $5.93/ton (See Comprehensive Strategy for Management of Coal Combustion Byproducts – June 2009), which is almost 80% less than per unit volume basis than disposal at Valley View. (Ghent CCP Plan at pages 18 and 20).
[5] See Ghent Landfill Capital Expenditures Phase I attached as Exhibit E.

Purchase of Scrubber Stone from Sterling

Sterling Materials mines a high calcium seam of limestone in its 2nd and 3rd levels that will meet, and possibly exceed, Ghent's calcium specifications for scrubber stone. Based on general industry knowledge, without verification, it is believed that Ghent's current cost of scrubber stone FOB plant is approximately $8.00.

The proposed price of 10.50 for gypsum disposal at Sterling includes $4.50 per ton for transportation, based upon an assumed round trip turn of 1.5 hours, and $75.00 per hour to haul 25 tons.

Sterling is proposing to sell high calcium limestone to Ghent for $6.50 per ton and backhauling the stone to Ghent. If a $1.50 per ton trucking fee is assigned to the transportation of the limestone, Ghent will incur no additional cost for it scrubber stone. However, reducing the transportation component of the gypsum disposal cost by $1.50 reduces the proposed disposal cost from $10.50 to $9.00 per ton, and correspondingly increases the PVRR saving advantage from approximately $79,000,000 to over $100,000,000. (See Exhibit G).

Construct Ash Storage Pond at Site M

Although KU has redacted from public view information provided to the Kentucky PSC on the cost associated with an ash landfill on Site M, it would generally appear that using Site M as an ash landfill verses Site E/F would substantially reduce ash disposal cost and further increase the PVRR saving from disposing all of Ghent's gypsum at Sterling.

Site M is substantially closer to Ghent than Site E/F (Ghent CCP Plan page 12 and Exhibit H). The estimated cost of hauling fly and bottom ash to Site E/F is $2,822,723 in 2013, and the corresponding haul Road maintenance cost is $53,529. Even reducing those costs by a modest 50% for the haul to Site M verses site E/F would produce another $21,800,000 in PVRR savings compared to CCP disposal at Ghent under Project 30.

EXHIBIT A

Coal Combustion Byproduct Plan for Ghent Station For

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Subsidiaries Kentucky Utilities and Louisville Gas and Electric

June 2009

CONFIDENTIAL INFORMATION REDACTED

1. Executive Summary

Kentucky Utilities Company's ("KU") Ghent station ("Ghent") produces three primary coal combustion byproducts ("CCP"): bottom ash, fly ash and gypsum, which are currently stored in two ash treatment basins and two gypsum stacking areas. These storage areas are expected to reach full capacity in 2012, creating a need for additional CCP management solutions.

A variety of on-site and off-site options were considered to meet CCP management needs at Ghent. The most effective solutions were identified through a needs analysis and economic analysis based on engineering cost estimates.

To address the pre-2013 need for gypsum storage capacity, an opportunity to remove a quantity of gypsum to be beneficially reused as structural fill was identified. This reuse option is significantly lower cost than transporting CCP to an off-site landfill, which is the other short-term option.

For longer-term CCP storage needs, KU contracted an engineering consultant to develop potential on-site storage alternatives. Of multiple options considered, four options were selected for further economic evaluation. Based on cost estimates and qualitative factors for these alternatives, the most favorable option is a single on-site landfill to store both ash and gypsum.

The most cost effective and environmentally sound CCP management options for Ghent are:

- a proposal for beneficial reuse of 1.3 million cubic yards ("MCY") of CCP (approximately 75% of annual CCP production) by Trans Ash, Inc. in 2010-2012 (Present value of revenue requirement ("PVRR") of [redacted] million or [redacted] per cubic yard), and
- the construction of a new on-site landfill system to store both ash and gypsum production for 25 years to be in-service by 2013 (PVRR of [redacted] million or [redacted] per cubic yard).

In addition, KU will continue to pursue other beneficial reuse opportunities that result in lower disposal costs.

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2. Background

Kentucky Utilities Company's ("KU's") Ghent generating station ("Ghent") is located in Carroll and Gallatin Counties, Kentucky and is comprised of four coal-fired generating units for a total net station capacity of over 1,900 MW. The station produces three primary coal combustion byproducts ("CCP"): bottom ash, fly ash and gypsum. The Ghent station has four existing on-site storage facilities for CCP as follows:

- Ash Treatment Basin ("ATB") #1
- ATB #2
- North Gypsum Stack
- South Gypsum Stack

The ATBs are used to store bottom ash and fly ash which are byproducts of burning coal. ATB #1 is at maximum capacity[1] and ATB #2 is nearing maximum desired capacity. As of February 2009[2], ATB #2 can hold approximately an additional 2.5 MCY of ash. Ghent is forecast to produce approximately 0.7 MCY of ash annually, thus depleting the capacity in ATB #2 in 2012.[3]

Gypsum is produced by Ghent's flue gas desulfurization ("FGD") systems, which use limestone reagent to remove sulfur dioxide from flue gas. Until an additional repository can be developed, Ghent's gypsum is stacked on site. Based on the plant's expected generation, the existing capacity of the north and south gypsum stacks (collectively the "gypsum stack") is expected to be exhausted in 2012.[4]

Some gypsum is currently sold to a third party for beneficial reuse.[5] CertainTeed, Inc. ("CertainTeed") currently pays KU [redacted] per cubic yard for gypsum to be used as a raw material in the production of wallboard. This contract began in 1999 and runs through 2024. CertainTeed does not have minimum or maximum volume obligations, but their expected annual volume is approximately 222,000 cubic yards of gypsum (approximately 20% of annual gypsum production) based on recent utilization data.[6]

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[1] ATB #1 is not relevant to this analysis as it is not currently receiving any CCP, although it is available for emergency use.

[2] A bathymetric survey of ATB #2 was conducted by HDR/Quest/Rudy for GAI Consultants in February 2009.

[3] The available capacity of ATB #2 at the end of June 2009 is forecasted to be approximately 2.3 MCY.

[4] The available capacity of the gypsum stack at the end of June 2009 is forecasted to be approximately 2.6 MCY.

[5] KU identifies economically and environmentally favorable options to beneficially reuse CCP, consistent with KU's Comprehensive Strategy for Management of CCP shown in Exhibit JNV-3.

[6] Gypsum sales to CertainTeed were 263,000 tons in 2007, 375,000 tons in 2008, and 103,000 tons year-to-date through May 2009. However, their purchases decreased late in 2008 and year-to-date in 2009 as the economy slowed.

3. Process and Methodology

KU and Louisville Gas and Electric Company (collectively "the Companies") develop the most effective plan for meeting the CCP storage needs at each generating station. The process of identifying the plan consists of the three following primary tasks which are performed by several departments within the Companies.

- Needs assessment
- Development of alternatives
- Comparison of alternatives

The CCP storage needs are defined by forecasting the production of CCP over the applicable planning period as compared to the existing storage capacity. The Project Engineering department and the applicable generating station are responsible for providing an estimate of remaining capacity.

The expected life of the existing storage capacity is based on the forecast of CCP production, which is developed by Generation Planning for all stations as a function of the expected coal usage for each unit. The Companies compile information regarding the cost of generation for each unit (fuel, variable O&M, emission costs, etc.), a description of the generation capabilities of each unit (capacity, heat rate curve, commitment parameters, emission rates, availability schedules, etc.), a load forecast, the market price of electricity, and the volumetric ability (transfer capability) to access the market. All of this information is brought together in the PROSYM™[7] software, which is used to model the economic operation of the Companies' generating system. The projected coal usage data provided by this model is checked for reasonableness by comparing the results to historical data.

The Project Engineering department develops alternatives for on-site CCP storage solutions and their associated costs. Any alternatives for off-site disposal such as beneficial reuse or off-site landfill disposal are provided by the generating stations' staff and a CCP team focused on exploring alternatives for byproduct storage. The cash flows for selected options are summarized and provided to Generation Planning for evaluation.

The Generation Planning department evaluates the storage and disposal options received from Project Engineering to determine the present value of revenue requirements ("PVRR") associated with the capital expenditures and O&M expenses of each option. This analysis is performed using the Capital Expenditure Recovery module of the Strategist®[8] software model.

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[7] The PROSYM™ model has formed the foundation of prior analyses involving certificates of convenience and necessity for new generating plants, environmental cost recovery for pollution control equipment, and the fuel adjustment clause.

[8] Strategist® is a proprietary, state-of-the-art resource planning computer model. The Capital Expenditure Recovery module is used to quantify the revenue requirements impact associated with capital projects.

4. Needs Assessment

The following capacities were provided by Project Engineering and the Ghent station:

- ATB #1 is at capacity and is available for emergency use only.
- As of February 2009, the remaining available capacity of ATB #2 is 2.5 million cubic yards.[9]
- The remaining available capacity of the gypsum stacks is estimated to be 2.9 MCY as of January 2009.[10]

The expected life of the remaining capacity of the ATB #2 and the Gypsum Stack were estimated by forecasting the CCP production of ash and gypsum at Ghent. The quantity of ash produced at Ghent is estimated at a coal specification of 11.5% ash by weight of the total quantity of coal used, or approximately 11.5 tons of ash per 100 tons of coal. Converting to volumetric measurement, assuming ash production consists of 80% fly ash and 20% bottom ash by weight, approximately 11.5 cubic yards of total ash is produced per 100 tons of coal.[11]

The chemical reaction by which gypsum is produced results in a net gypsum production of approximately 18% by weight of the total quantity of coal used,[12] or approximately 18 tons of gypsum per 100 tons of coal. Converting to volumetric measurement for the gypsum stack, approximately 17.8 cubic yards of gypsum is produced per 100 tons of coal.

The forecasted CCP production volume for Ghent is shown in Table 1 and depicted graphically in Figure 1 and Figure 2, based on the forecasted coal burn shown in Table 2. Table 2 also contains the historical quantities of coal burned as a comparison to the forecast. The increase in coal burn during the 2010-2013 period is due to the completion of the FGD installations at Ghent in 2009, which required prior scheduled outages on each of the Ghent units during 2007-2009. Also, with the addition of the FGDs, Ghent has lower fuel costs, resulting in higher forecasted generation.

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[9] Based on expected coal burn, Generation Planning forecasts that by the end of 2009, the remaining capacity of ATB #2 will be 1.9 MCY.

[10] Based on expected coal burn and existing beneficial reuse, Generation Planning forecasts that by the end of 2009, the remaining capacity of the gypsum stacks will be 2.2 MCY.

[11] Density assumptions for wet storage are 0.945 tons per cubic yard for bottom ash and 1.0125 tons per cubic yard for both fly ash and gypsum.

[12] Fuel specification assumptions include SO_2 content of approximately 5.9 lb/mmBTU and heat content of 22.16 mmBTU/ton.

Table 1: CCP Production Forecast (MCY)

CCP Production Forecast *(MCY – wet storage)*			
	Fly Ash	**Bottom Ash**	**Gypsum**
2009	0.54	0.14	0.88
2010	0.55	0.15	1.09
2011	0.58	0.15	1.12
2012	0.55	0.15	1.06
2013	0.55	0.15	1.09

Table 2: Ghent Coal Usage (Million Tons)

Ghent Coal Usage *(M Tons)*	
Historical	
2004	5.4
2005	5.6
2006	5.6
2007	5.3
2008	5.7
Forecast	
2009	5.6
2010	6.0
2011	6.3
2012	6.1
2013	6.1

The forecasted generation and the resulting coal usage at Ghent correspond to an average capacity factor of approximately 77%. This relatively high capacity factor is consistent with Ghent's low production cost. Since Ghent is already modeled as a baseload station, the risk of significantly underestimating CCP production is low. However, reduction in load or unexpected outages at Ghent could affect the capacity factor and lower future CCP production.

Figures 1 and 2 show the forecasted cumulative CCP production at the end of each year compared to the expected available capacity at the end of 2009. With current forecasts for ash production and without any additional on-site capacity or off-site storage or reuse, ATB #2 is expected to reach full capacity during 2012, as shown in Figure 1. Assuming no beneficial reuse beyond the expected 222,000 cubic yards per year by CertainTeed, the gypsum stack is also expected to reach maximum capacity in 2012, as shown in Figure 2.

Figure 1: ATB #2 Capacity

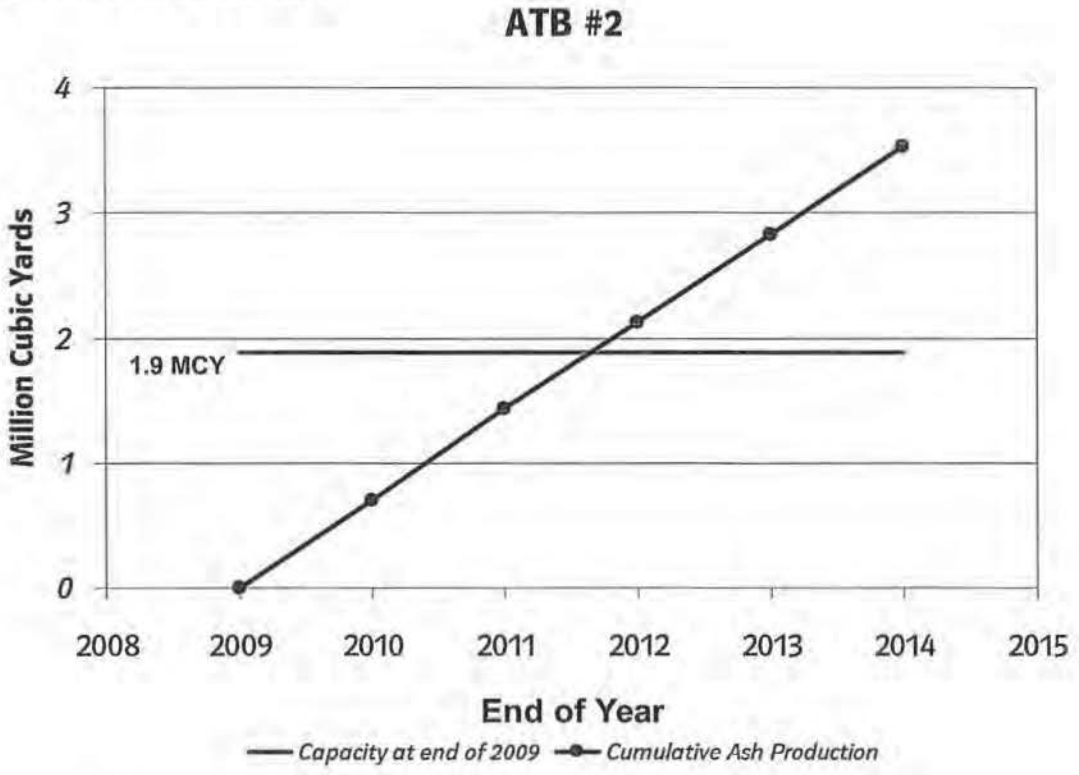
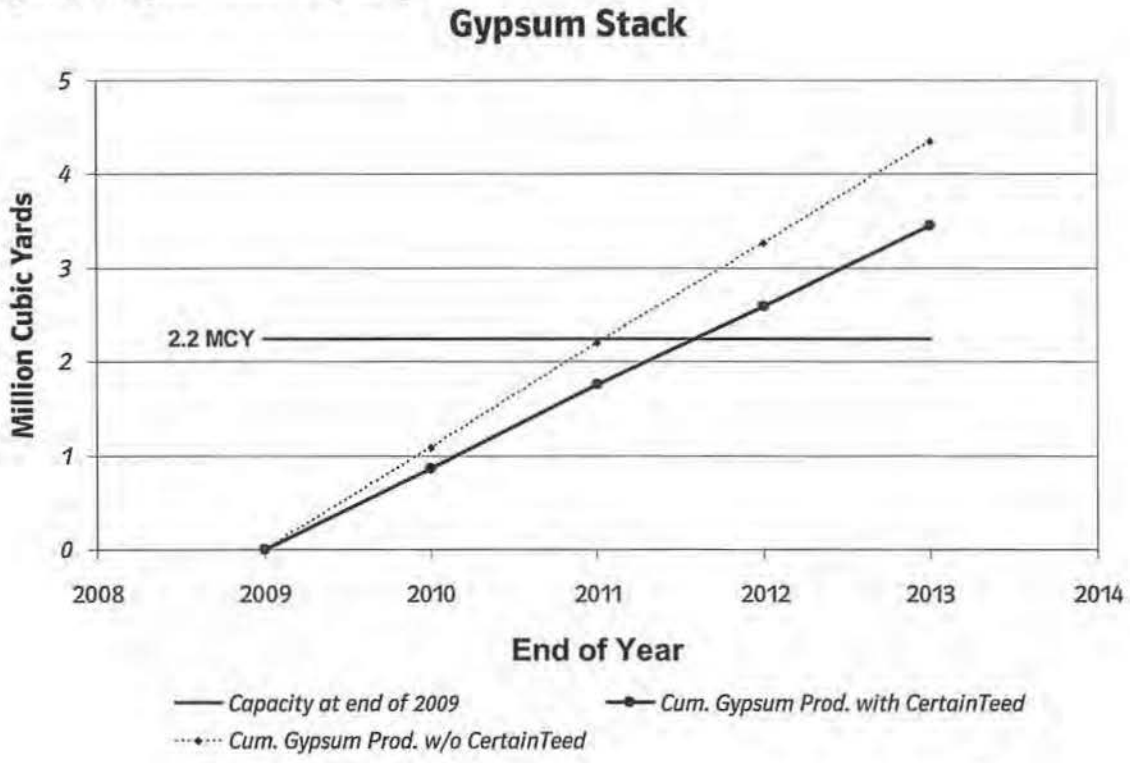


Figure 2: Gypsum Stack Capacity



In summary, the needs assessment indicates that additional CCP disposal alternatives will be needed for both ash and gypsum at Ghent by 2012. At least 0.6 MCY of CCP must be moved off-site in order to maintain operations of the existing storage facilities at Ghent through 2012.

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5. Development of Alternatives

In the case of CCP solutions for Ghent, Project Engineering and the CCP team developed two sets of options for evaluation:

1. Short-term storage options to meet 2009-2012 requirements
2. Long-term storage options to meet 2013-2037 requirements.

The short-term options were developed because long-term options cannot be in service before 2013, and on-site capacity is expected to be depleted in 2012. These options were evaluated independently, leading to a recommendation for short-term and long-term solutions.

5.1 Short-Term Disposal

As a result of ATB #2 and the gypsum stack nearing their maximum desired storage capacities, the station, in conjunction with the CCP Team, negotiated with Trans Ash, Inc. ("Trans Ash"), a company specializing in the reuse of CCP, to beneficially reuse 1.3 MCY (approximately 1.5 million tons as hauled) of CCP as structural fill. The 2009 base cost of this proposal is [redacted] per MCY[13], subject to annual adjustments to the base price and fuel cost adjustments. The base price is redetermined by increasing the previous year's price by 90 percent of the year-over-year percent change in the Consumer Price Index – All Urban Customers, U.S. City Average. The fuel adjustments are made for both off-road and on-road diesel use. Off-road fuel adjustments are calculated as the difference between the base diesel unit price of [redacted] per gallon and the average unit diesel price paid multiplied by the quantity of off-road diesel purchased each year. The on-road diesel adjustment is calculated as the product of the average quantity of fuel used and the difference between the base diesel price and the index price as published by the U.S. Department of Energy, Energy Information Administration in "The U.S. No 2 Diesel Low Sulfur (15-500 ppm) Retail Sales by All Sellers (Cents per Gallon)"

An agreement with Trans Ash would require that the full 1.3 MCY be moved in 2010-2012 to satisfy the end consumer of the beneficial reuse opportunity. Consistent with KU's CCP management strategy, this fill location has been evaluated and confirmed as appropriate for beneficial reuse. The location is not in an environmentally sensitive area.

The only near-term alternative to beneficial reuse of CCP is the use of an existing off-site commercial landfill. For 2009, the total unit cost of storage in the closest off-site landfill was estimated to be [redacted] per cubic yard[14]. In contrast to the Trans Ash proposal, an off-site landfill storage option requires that only a minimum of 0.6 MCY must be moved off-site prior to 2013 to ensure continuing operations at Ghent.

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13 [redacted] per MCY as stored is equivalent to [redacted] per ton as hauled.

14 [redacted] per cubic yard is equivalent to [redacted] per ton as hauled for transport and storage at Valley View landfill near Sulphur, KY, approximately 25 miles from Ghent. Cost components per ton are [redacted] for excavating and loading, [redacted] for hauling, and [redacted] for landfill tipping fee. This quoted tipping fee is slightly below the listed rates of [redacted]/ton for other regional public landfills.

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5.2 Long-Term Storage

To meet the long-term storage needs at Ghent, KU contracted GAI Consultants, Inc., Pittsburgh, PA ("GAI") to provide both an Initial Siting Study ("ISS") and a Final Conceptual Design Study of CCP storage alternatives at Ghent.[15] The ISS identified over forty potential alternatives based on combinations of a number of variables, including storage and transport methods, site locations, and relocation of transmission lines. As a result of this study, four on-site alternatives shown in Table 3 were selected for further consideration. In the process of developing the Final Conceptual Design Study, GAI refined the cost estimates for these alternatives in addition to other detailed engineering tasks. As an alternative to building on-site storage facilities, use of an existing off-site commercial landfill for storing future CCP was also considered as a long-term option.

Table 3: Alternatives for Long-Term Storage

		On-Site				
Case		**14/28**	**37**	**41**	**42/28**	**Off-Site Landfill**
Description		2 Landfills	1 Landfill	1 Pond	1 Pond 1 Landfill	
Total Capacity *(MCY)*		46.1	46.1	53.6	48.3	46.1 needed
Nominal Cost *($M)*	**Capital**					
	O&M[16]					

Each of the cases for on-site long-term storage was designed to hold twenty-five years of CCP production with phased construction. The total capacity required for each case differs due to the different density of CCP stored in ponds versus landfills. Table 4 shows the construction periods, the in-service years, and the capacity for each phase of the on-site cases. The site locations as shown in Figure 3 are noted as follows:

- Site M is north of ATB #2 on property owned by KU.
- Site E/F which is southeast of ATB #2 and include properties owned by KU and approximately 350 acres owned by others.
- Pond L represents vertical and lateral expansion east of ATB #2 with an impoundment.

[15] A preliminary draft of the Final Conceptual Design Study is shown in Exhibit JNV-4.
[16] The O&M figures in Table 3 include the cost for power to operate the on-site storage alternatives.

Figure 3: CCP Storage Site Alternatives

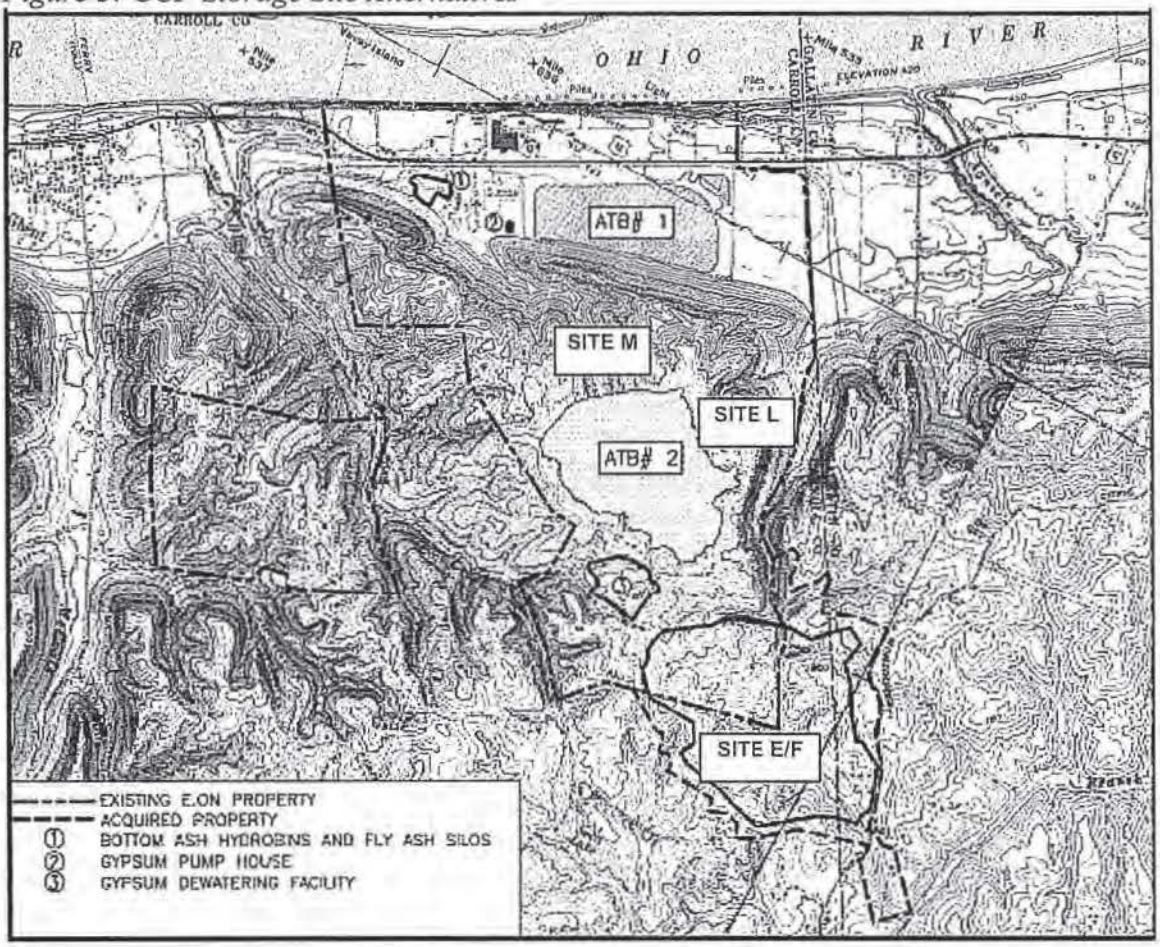


Table 4: Construction Phases for On-Site Storage Options

Case		**14/28**		**37**	**41**	**42/28**	
Site Location		M	E/F	E/F	L	L	E/F
Phase 1	**Construction**	2010-14		2010-14	2010-13	2010-14	
	In-Service	2013		2013	2013	2013	
	Capacity *(MCY)*	5.3	5.7	14.7	16.5	7.2	8.4
Phase 2	**Construction**	2016-18		2018-19	2017-19	2018-20	
	In-Service	2019		2020	2020	2021	
	Capacity *(MCY)*	8.5	8.0	12.3	15.7	8.3	7.7
Phase 3	**Construction**	--	2023-25	2024-26	2025-27	2027-29	
	In-Service	--	2026	2027	2028	2030	
	Capacity *(MCY)*	--	12.4	19.1	21.6	6.1	8.0
Phase 4	**Construction**	2027-29	--	--	--	--	
	In-Service	2030	--	--	--	--	
	Capacity *(MCY)*	6.2	--	--	--	--	--

Case 14/28. Case 14/28 consists of separate landfills for ash and gypsum with ash stored at Site M and gypsum stored at Site E/F. Construction of the landfills consists of four phases as shown in Table 4 with the first phase beginning in 2010 and the final phase ending in 2029. Figure 4 shows the phased cumulative design capacity of the landfill at Site M compared to the forecasted ash production. Figure 5 shows the phased cumulative design capacity of the landfill at Site E/F compared to the forecasted gypsum production both including and excluding the effect of the expected gypsum reuse by CertainTeed. These figures, as well as Figures 6-9, demonstrate that the designs for the timing and volume of capacity additions for each of the cases considered are reasonable compared the forecasted CCP production.

Figure 4: Long-Term Needs Assessment – Case 14/28, Landfill M

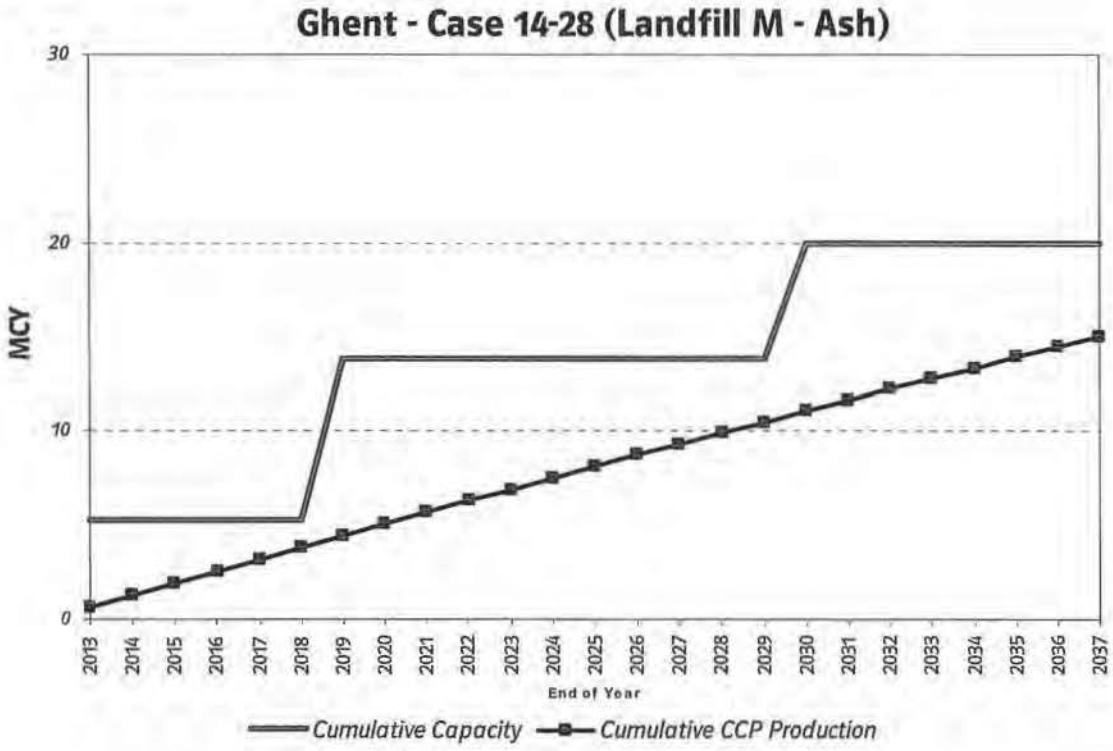
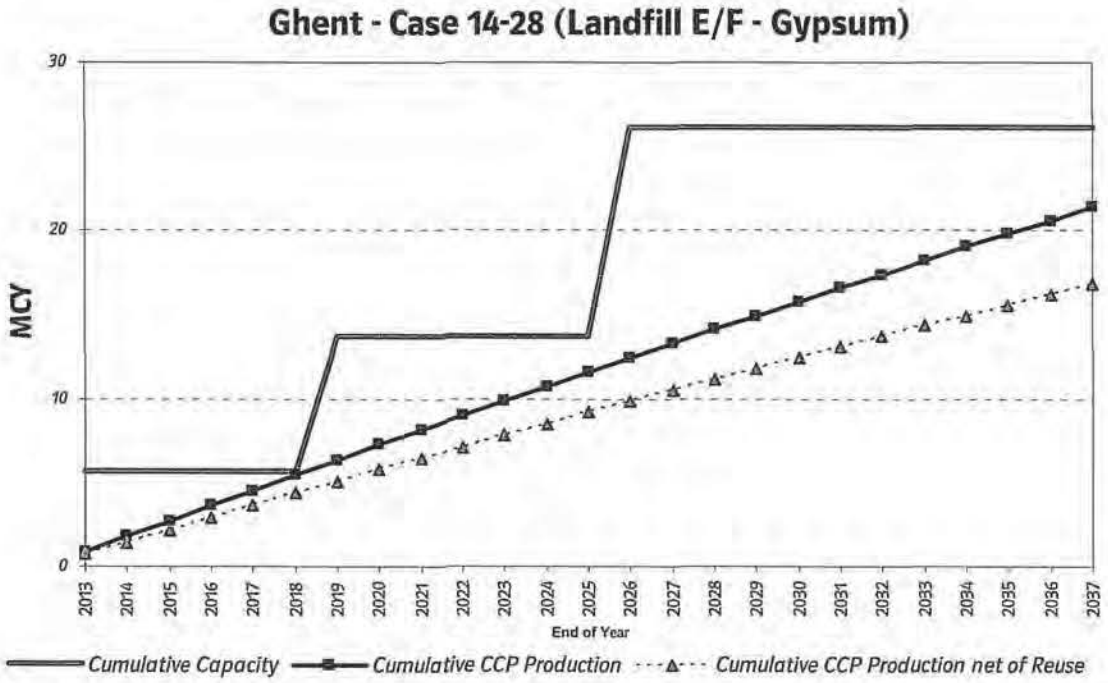
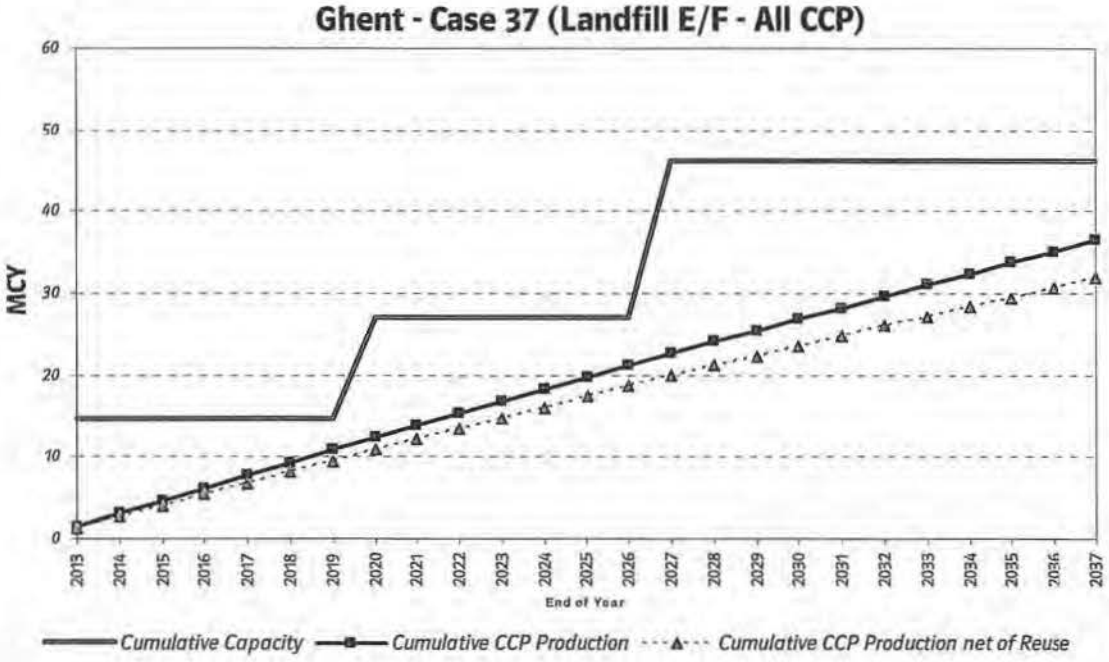


Figure 5: Long-Term Needs Assessment – Case 14/28, Landfill E/F



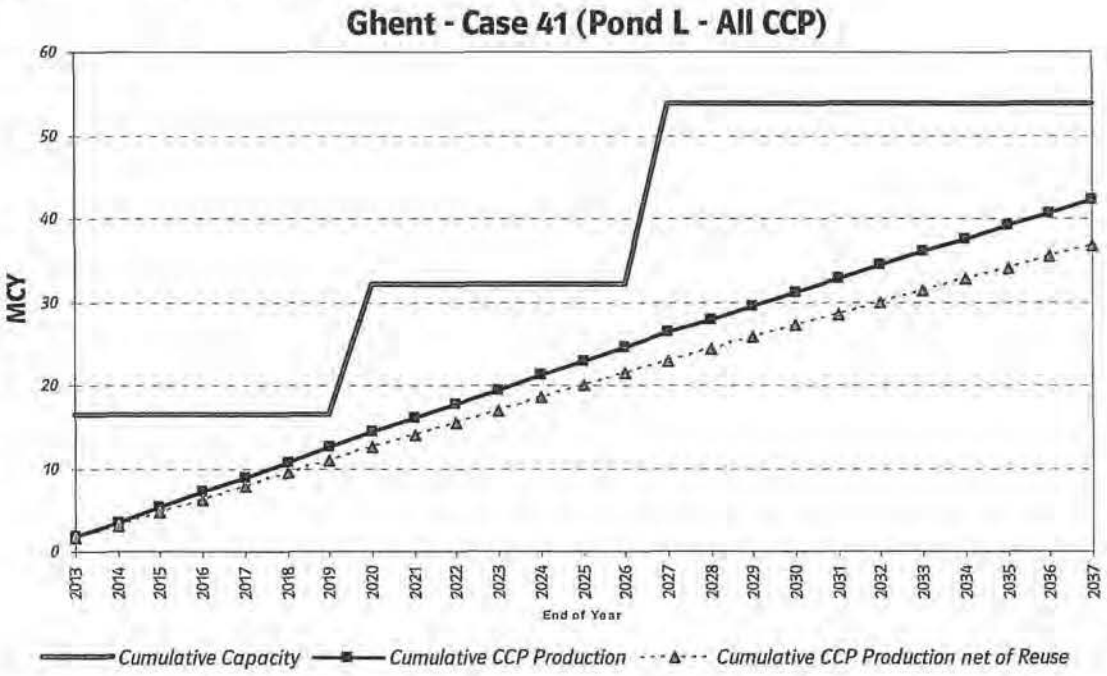
Case 37. Case 37 consists of a single landfill for both ash and gypsum at Site E/F. The construction schedule consists of three phases beginning in 2010 and ending in 2026. Figure 6 shows the phased cumulative design capacity of this landfill compared to the forecasted cumulative CCP production both including and excluding the effect of the expected gypsum reuse by CertainTeed.

Figure 6: Long-Term Needs Assessment – Case 37, Landfill E/F



Case 41. Case 41 consists of a single pond for both ash and gypsum at Site L. The construction schedule consists of three phases beginning in 2010 and ending in 2027. Figure 7 shows the phased cumulative design capacity of this landfill compared to the forecasted cumulative CCP production both including and excluding the effect of the expected gypsum reuse by CertainTeed.

Figure 7: Long-Term Needs Assessment – Case 41, Pond L



Case 42/28. Case 42/28 consists of a pond at "Site L" for ash and a landfill at "Site E/F" for gypsum. Construction of these facilities consists of four phases as shown beginning in 2010 and the final phase ending in 2029. Figure 8 shows the phased cumulative design capacity of the pond at Site L compared to the forecasted ash production. Figure 9 shows the phased cumulative design capacity of the landfill at Site E/F compared to the forecasted gypsum production both including and excluding the effect of the expected gypsum reuse by CertainTeed.

Figure 8: Long-Term Needs Assessment – Case 42/28, Pond L

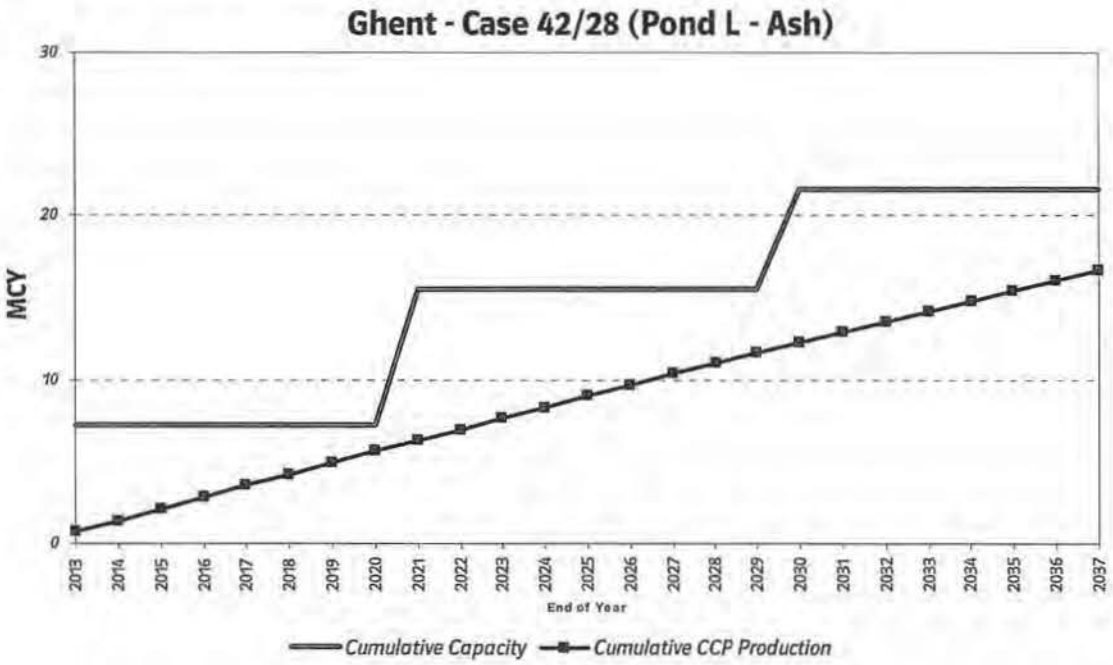
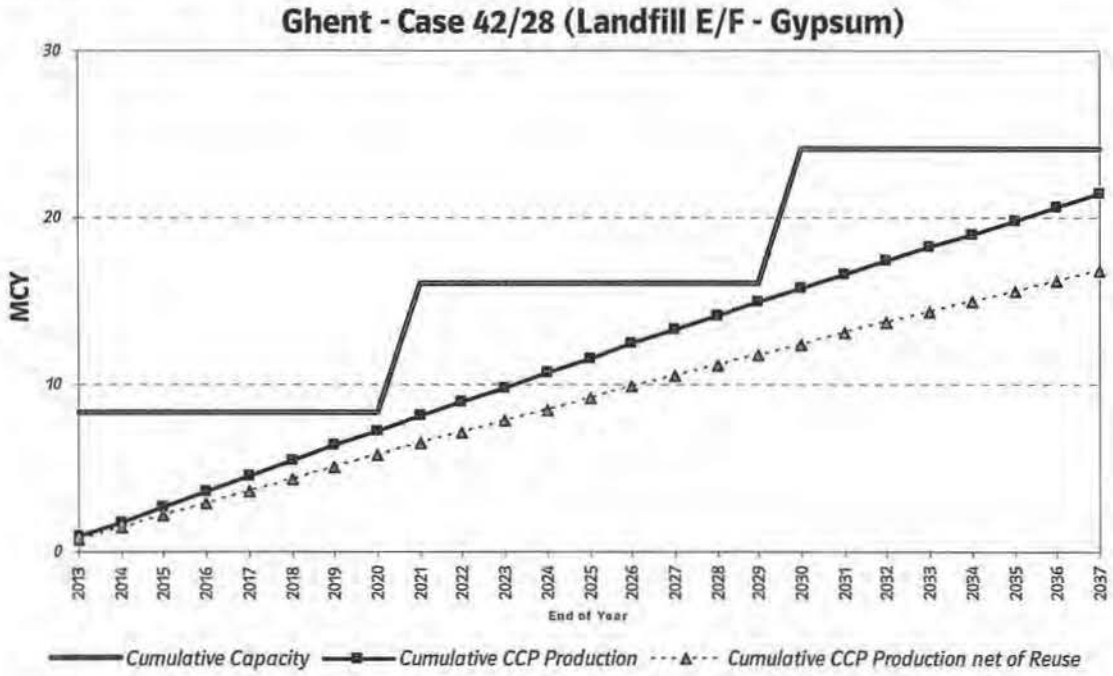


Figure 9: Long-Term Needs Assessment – Case 42/28, Landfill E/F



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6. Comparison of Alternatives

6.1 Short-Term Disposal

The short term disposal analysis compares the cost of a beneficial reuse initiative with Trans Ash to the cost of off-site landfill disposal. The Trans Ash proposal is to move 1.3 MCY in 2010 through 2012 and the plan for off-site landfill disposal is to move 0.6 MCY in 2012. Both of these options consist only of O&M costs, with no additional capital expenditure. As seen in Table 5, the Trans Ash proposal is the least-cost option to meet the short term capacity needs at Ghent. On a cost per volume basis, the Trans Ash option is almost 80% less costly than the off-site landfill option. Also, despite the higher volume requirement, the Trans Ash proposal's PVRR is $9.8 million lower than the off-site landfill alternative.

Table 5: PVRR Analysis Summary of Short-Term Alternatives

	Trans Ash Beneficial Reuse	**Off-site Landfill Disposal**
Total Quantity *(MCY)*	1.3	0.6
PVRR *(2009 million $)*		
Delta to Least Cost Case	*Least Cost*	*9.8*
Unit Cost *(2009 PVRR $/cubic yard)*		

6.2 Long-Term Storage

The long-term storage evaluation (Table 6) compares the PVRR and per-unit cost of four on-site storage alternatives selected in the engineering studies, in addition to disposal in an off-site commercial landfill. The financial assumptions related to the analysis of these cases are shown in Appendix 1, the projected cash flows are shown in Appendix 2, and the annual revenue requirements are detailed in Appendix 3.

The following is a brief comparison of the results:

Case 37. Case 37 consists of a common on-site landfill for both ash and gypsum. This is least cost on a PVRR basis by $26 million. This option is also lowest cost on a per unit volume basis at PVRR per cubic yard. The favorable capital profile of this project results from the single landfill approach compared to Case 14/28, which includes separate landfills for ash and gypsum.

Case 14/28. Case 14/28 consists of separate landfills for ash and gypsum and involves higher up-front capital costs ($34 million higher through 2017, $6 million of which is due to transmission expenditures), an accelerated timeline for the addition of subsequent phases, and an additional construction phase compared to Case 37. This is partially offset by slightly lower annual O&M costs due to reduced distances for transporting ash. In summary, the lower costs associated with the shorter transport distances are overcome by the additional costs of the two landfills.

Cases 41 and Case 42/28. Case 41 consists of a single pond for both ash and gypsum and Case 42/28 consists of an ash pond and a gypsum landfill. The construction of an ash

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pond is significantly more capital intensive compared to a landfill, although the ongoing operation is less costly. Through 2016, both of these cases are approximately $95 million higher in total capital costs than Case 37. Construction of the second and third phases increases the capital premium to $850 million for Case 41 and $350 for Case 42/28. Inclusion of the pond closure costs in 2038 raises these figures to $1,145 million and $475 million for Cases 41 and 42/28, respectively. Although the O&M is significantly lower for these cases compared to Case 37, it is not enough to offset the effect of the higher initial capital expenditures.

Off-site landfill. The off-site landfill option consists only of O&M costs, but this option is the highest-cost alternative due to the high unit cost of off-site landfill disposal, which is approximately [redacted] PVRR per cubic yard.

Beneficial Reuse. KU will evaluate beneficial reuse opportunities as they arise, and will pursue proposals that are favorable to on-site disposal.

Table 6: PVRR Analysis Summary of Long-Term Alternatives
(2009 PVRR million $)

Case	14/28	37	41	42/28	Off-Site Landfill
PVRR					
Capital	[redacted]				
O&M					
Total					
Delta to Least Cost Case	*26*	*Least Cost*	*254*	*125*	*413*
Capacity *(MCY)*	46.1	46.1	53.6	48.3	46.1
Unit Cost *(2009 PVRR $/CY)*	[redacted]				

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7. Recommendations

The needs assessment demonstrates a need for additional CCP storage capacity at the Ghent station by 2012. Analysis of the options provided by Project Engineering demonstrates that the most favorable alternatives to meet Ghent's CCP storage needs are:

- Short-term: the proposal for beneficial reuse of 1.3 MCY of gypsum by Trans Ash in 2010 through 2012. The PVRR is [redacted] million, or [redacted] per cubic yard.
- Long-term: constructing the first phase of an on-site landfill to store both ash and gypsum, to be in-service in 2013. The PVRR is [redacted] million, comprised of [redacted] million capital and [redacted] million O&M.

The short-term solution utilizing beneficial reuse is almost 80% less on a per unit of volume basis than disposal at an off-site commercial landfill. The unit cost of this short-term recommendation is also lower than the unit cost of the recommended long-term on-site landfill. The long-term solution includes the construction of a single landfill and is 4% less on a PVRR basis than the dual landfill option (Case 14/28).

Further details regarding the status of this project and the expected construction schedule are shown in Appendix 4.

Appendix 1

Analysis Assumptions

- Study Period: 30-year period for operational costs impacts (2009-2038)
  50-year period for capital costs impacts (2009 through tax life of final project phase).

  The revenue requirements associated with capital costs are determined via the Capital Expenditure and Recovery module of the Strategist production and capital costing software. To completely account for capital projects costs over their lifetime, the revenue requirements associated with new capital projects were included beyond the operational study period through the end of their tax life.

- Capital and O&M costs associated with the addition of new environmental projects will be subject to recovery through the Environmental Cost Recovery ("ECR") mechanism. O&M costs for electrical power usage required to operate equipment related to CCP storage are included when comparing alternatives (noted as "Power" in Appendix 2) but are not included as recoverable costs for calculation of ECR billing factors.

- Financial data
  - Discount rate: 7.81%
  - Income tax rate: 38.9%
  - Insurance rate: 0.07%
  - Property tax rate: 0.15 %
  - Percentage of debt in capital structure: 47.01%
  - Debt interest rate/weighted cost of debt: 4.64%
  - Return on equity: 10.63%
  - Book life - average landfill phase (non-transmission): 12 years
  - Book life – transmission (line relocation): 40 years
  - Tax life: 20 years
  - Annual capital and O&M escalation rate: 6%
  - Contingency included in cost estimates: ~28%
  - E.ON US overhead included in capital costs 3.5%
  - Capital expenditures are assumed to occur at year end.

- CCP data
  - Coal ash content: 11.5%
  - Coal SO_2 content: ~5.9 lb/mmBTU
  - Coal heat content: 22.16 mmBTU/ton
  - FGD removal efficiency:
    Units 1, 3, 4 98%
    Unit 2 (currently Unit 1) 94.3%

Appendix 2

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Projected Cash Flows

Annual Cash Flows Short-Term Options O&M Only *($ thousands)*		
Case	**Beneficial Reuse**	**Off-Site Landfill**
2008	[redacted]	
2009		
2010		
2011		
2012		
2013+		
Total		

$ thousands

Case **14/28** **2 landfills**

	Annual Cash Flows										
	Capital						**O&M**				**Total**
	Phase1	Phase2	Phase3	Phase4	Transmission	**Total Capital**	Non-Power	Power	Trans Ash	**Total O&M**	
2008	[redacted]										
2009											
2010											
2011											
2012											
2013											
2014											
2015											
2016											
2017											
2018											
2019											
2020											
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2030											
2031											
2032											
2033											
2034											
2035											
2036											
2037											
2038											
Total											

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$ thousands

Case 37 1 landfill

	Annual Cash Flows										
	Capital						O&M				Total
	Phase1	Phase2	Phase3	Phase4	Transmission	Total Capital	Non-Power	Power	Trans Ash	Total O&M	
2008											
2009											
2010											
2011											
2012											
2013											
2014											
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2016											
2017											
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2032											
2033											
2034											
2035											
2036											
2037											
2038											
Total											

CCP Plan for Ghent Station
June 2009
Appendix 2 – Projected Cash Flows

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$ thousands

Case 41 1 pond

	Annual Cash Flows										
	Capital						O&M				Total
	Phase1	Phase2	Phase3	Phase4	Transmission	**Total Capital**	Non-Power	Power	Trans Ash	**Total O&M**	
2008	[redacted]										
2009											
2010											
2011											
2012											
2013											
2014											
2015											
2016											
2017											
2018											
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2032											
2033											
2034											
2035											
2036											
2037											
2038											
Total											

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June 2009
Appendix 2 – Projected Cash Flows

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$ thousands

Case 42/28 1 pond/1 landfill

	Annual Cash Flows										
	Capital						O&M				Total
	Phase1	Phase2	Phase3	Phase4	Transmission	Total Capital	Non-Power	Power	Trans Ash	Total O&M	
2008	[redacted]										
2009											
2010											
2011											
2012											
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2034											
2035											
2036											
2037											
2038											
Total											

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$ thousands

Case	Off-Site Landfill (O&M Only)		
	Capital	O&M	
Cost Escalation		6%	2%
2008			
2009			
2010			
2011			
2012			
2013			
2014			
2015			
2016			
2017			
2018			
2019			
2020			
2021			
2022			
2023			
2024			
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2027			
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2031			
2032			
2033			
2034			
2035			
2036			
2037			
2038			
Total			

Appendix 3

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Revenue Requirements Detail

$ thousands

Case **Short-Term Beneficial Reuse (O&M Only)**

	Capital	O&M
2008	[redacted]	
2009		
2010		
2011		
2012		
2013+		
2009 PVRR		

$ thousands

Case **Short-Term Off-Site Landfill (O&M Only)**

	Capital	O&M
2008	[redacted]	
2009		
2010		
2011		
2012		
2013+		
2009 PVRR		

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$ thousands

Case 14/28 2 landfills

	Annual Revenue Requirements										
	Capital						O&M				Total
	Phase1	Phase2	Phase3	Phase4	Transmission	Total Capital	Non-Power	Power	Trans Ash	Total O&M	
2009											
2010											
2011											
2012											
2013											
2014											
2015											
2016											
2017											
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2057											
2058											
2009 PVRR											

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$ thousands

Case 37 1 landfill

	Annual Revenue Requirements										
	Capital						O&M				Total
	Phase1	Phase2	Phase3	Phase4	Transmission	Total Capital	Non-Power	Power	Trans Ash	Total O&M	
2009											
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2058											
2009 PVRR											

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June 2009
Appendix 3 – Revenue Requirements Detail

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$ thousands

Case 41 1 pond

	Annual Revenue Requirements										
	Capital						O&M				Total
	Phase1	Phase2	Phase3	Phase4	Transmission	Total Capital	Non-Power	Power	Trans Ash	Total O&M	
2009	[redacted]										
2010											
2011											
2012											
2013											
2014											
2015											
2016											
2017											
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2058											
2009 PVRR											

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June 2009
Appendix 3 – Revenue Requirements Detail

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$ thousands

Case **42/28** **1 pond/1 landfill**

	Annual Revenue Requirements										
	Capital						O&M				Total
	Phase1	Phase2	Phase3	Phase4	Transmission	**Total Capital**	Non-Power	Power	Trans Ash	**Total O&M**	
2009	[redacted]										
2010											
2011											
2012											
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2015											
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2057											
2058											
2009 PVRR											

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Case **Off-Site Landfill (O&M Only)**

$ thousands

using 6% cost escalation

	Capital	O&M
2008	[redacted]	
2009		
2010		
2011		
2012		
2013		
2014		
2015		
2016		
2017		
2018		
2019		
2020		
2021		
2022		
2023		
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2030		
2031		
2032		
2033		
2034		
2035		
2036		
2037		
2038		
2009 PVRR		

using 2% cost escalation

	Capital	O&M
2008	[redacted]	
2009		
2010		
2011		
2012		
2013		
2014		
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2017		
2018		
2019		
2020		
2021		
2022		
2023		
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2037		
2038		
2009 PVRR		

Appendix 4

Project Status *(As of April 2009)*

Detailed Design

The detailed design phase for Case 37 is currently in progress. Meetings are being conducted with the E.ON U.S. property appraiser and the individual owners of properties within the boundaries of Site F. After obtaining approval from these property owners, geotechnical, archaeological, ecological, and historical structures studies have begun. This will allow for the completion of the detailed engineering design and the start of the development of the permits for this location. The permits are expected to be submitted by the end of 2009.

Construction Schedule

The preliminary design for the landfill is to develop it in three distinct phases. This detail as well as the closure plan for each phase will be further developed in the detailed design phase. The current schedule is shown in Table A4-1.

Table A4-1: Preliminary Construction Schedule

Task	Schedule
Property acquisition	3rd Quarter 2009
Begin first phase landfill development	2nd Quarter 2010
Finish first phase landfill development	4th Quarter 2014
Begin second phase landfill development	2nd Quarter 2018
Finish second phase landfill development	4th Quarter 2019
Begin third phase landfill development	2nd Quarter 2024
Finish third phase landfill development	4th Quarter 2026

The risks associated with the project include the following:

- Inability to reach a settlement on purchase price for one or more of the properties required for the site, resulting in lengthy eminent domain litigation
- Discovery of unknown geotechnical issues
- Litigation and intervention of the 401/404 permits for Sites E/F could delay the construction of this section of the work
- Failure of major components during start-up
- Unseasonable weather, such as exceptionally heavy rainfall, late spring, early on-set of winter, etc.
- Engineering design failure of a component of design
- Contractor delays due to shortage of materials or manpower issues
- Change in regulations

EXHIBIT B

Revenue Requirements Summary
2009 Amended Plan - KU

		2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Project 30	**Ghent Landfill - Phase I**										
	Revenue Requirement										
	Eligible Plant	4,321,671	46,476,848	105,485,803	177,577,356	191,133,916	201,941,953	202,576,976	203,254,220	203,969,979	203,969,979
	Less: Retired Plant	-	-	-	-	-	-	-	-	-	-
	Less: Accumulated Depreciation	-	-	-	-	(5,110,443)	(10,744,624)	(16,396,577)	(22,067,370)	(27,758,132)	(33,448,895)
	Plus: Accumulated Depreciation on retired plant	-	-	-	-	-	-	-	-	-	-
	Less: Deferred Tax Balance	-	-	-	-	(732,114)	(3,915,287)	(6,717,731)	(9,167,625)	(11,289,716)	(13,100,909)
	Plus: Deferred Tax Balance on retired plant	-	-	-	-	-	-	-	-	-	-
	Environmental Compliance Rate Base	4,321,671	46,476,848	105,485,803	177,577,356	185,291,361	187,282,042	179,464,668	172,019,025	164,922,131	157,420,175
	Rate of return	11.12%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
		$ 480,509	$ 5,098,393	$ 11,571,030	$ 19,478,952	$ 20,325,122	$ 20,543,496	$ 19,685,976	$ 18,869,243	$ 18,090,765	$ 17,267,855
	Operating expenses	84,800	121,349	128,630	136,348	19,003,308	20,143,507	21,352,117	22,633,244	23,991,239	25,430,713
	Annual Depreciation expense	-	-	-	-	5,110,443	5,634,180	5,651,953	5,670,793	5,690,762	5,690,762
	Less depreciation on retired plant	-	-	-	-	-	-	-	-	-	-
	Annual Property Tax expense	-	6,483	69,716	158,229	266,366	279,035	286,796	279,274	271,780	264,318
	Total OE	$ 84,800	$ 127,832	$ 198,346	$ 294,577	$ 24,380,117	$ 26,056,723	$ 27,290,866	$ 28,583,310	$ 29,953,782	$ 31,385,793
	Total E(m)	565,309	5,226,225	11,769,376	19,773,528	44,705,239	46,600,208	46,976,843	47,452,553	48,044,547	48,653,648

EXHIBIT C

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

THE APPLICATION OF KENTUCKY UTILITIES COMPANY FOR A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY AND APPROVAL OF ITS 2009 COMPLIANCE PLAN FOR RECOVERY BY ENVIRONMENTAL SURCHARGE	))))))	CASE NO. 2009-00197

DIRECT TESTIMONY OF
JOHN N. VOYLES, JR.
VICE PRESIDENT, TRANSMISSION AND GENERATION SERVICES
KENTUCKY UTILITIES COMPANY

Filed: June 26, 2009

contain sufficient capacity for bottom ash storage for approximately 30 years. The Main Pond will have approximately six (6) years of projected remaining capacity after elevation 912 feet is completed in 2012.

Exhibit JNV-8 is a conceptual design report for the Brown station ash treatment basin, prepared by the Fuller Mossbarger Scott and May engineering firm. Exhibit JNV-9 is a preliminary design report for the Brown station ash treatment basin, also prepared by Fuller Mossbarger Scott and May engineering firm. Exhibits JNV-8 and JNV-9 are on the compact disc included with this testimony and provide more details associated with this project.

Q. Is this project a cost-effective means of complying with environmental regulations and permits?

A. Yes, this project allows KU to continue to comply with all applicable environmental regulations. As first demonstrated in Case No. 2004-00426, and consistent with the 2006 ECR Update made to the Commission staff, the phased approach to the construction of the ash treatment basins continues to be the least-cost approach to manage CCP at the Brown station. As detailed in the testimony of Mr. Schram, high costs continue to preclude cost effective off-site alternatives.

Project 30 – Ghent Station Landfill

Q. Please describe the new landfill at the Ghent Station (Project 30), the anticipated cost and the associated timeline.

A. Project 30 consists of the first phase (Phase I) of a three phase, new landfill construction project at the Ghent station for continued on-site management of CCP. Completion of this project requires the procurement of approximately 350 acres of

land and relocation of approximately 2,500 linear feet of transmission line, existing underground utilities and a small cemetery (currently known to contain six burial plots). The project includes a transport system for the CCP material and the installation of a leachate collection/sediment retention pond. Phase I is expected to cost approximately $204 million with a total project capital cost (Phases I-III) estimated to be approximately $360 million. Phase I construction is expected to take 18-24 months to complete and is expected to be in-service by 2013.

Of the two existing on-site ash treatment basins, Basin #2 is currently the only operational basin at the Ghent station. Basin #1 reached its maximum desired capacity in 1995. Basin #2 was put into service in 1995 with a storage capacity of 2,580 acre-feet. In Case No. 2002-00208, KU advised the Commission that Basin #2 would be constructed in two phases. Detailed bids indicated that the two phase construction to elevation 800 feet had a projected total cost of $25.9 million (2002 dollars), while construction to 800 feet in one project had a total cost of $17.3 million. To take advantage of this significant cost savings, KU modified the construction project and undertook a single project to elevate the dike to 800 feet. As mentioned in Exhibit CRS-3 of Mr. Schram's testimony (the Coal Combustion Byproduct Plan for the Ghent station), vertical expansion of Basin #2 beyond 800 feet at Ghent was determined to be cost prohibitive.

Project 30 (Phase I of the proposed new landfill at the Ghent generating station) includes the following scope of work:

1. **Initial Siting Study** (Completed) – This phase evaluated various CCP storage locations on existing Ghent property and the area surrounding the plant. Initially, 42 landfill and impoundment scenarios were evaluated during this study.

2. **Conceptual Design** (Completed) – This phase took the results of the Initial Siting Study and developed 5 storage alternatives and provided scope of work estimates and net present value evaluations. Based on this data the best storage alternative was chosen, Case #37 – Single 25 year, landfill located on both existing plant and non-plant property.

3. **Final Design** (In Progress) – This phase will design and permit Case #37. Work in this phase will include the landfill design/permitting, wetlands/stream mitigation, transmission/distribution line relocation design, various environmental studies, etc. The goal of this phase is to obtain the construction permits, develop Issued for Construction drawings and specifications for all phases, as well as develop the landfill O&M manual.

4. **Phase I Construction** – Once the Certificate of Public Convenience and Necessity ("CPCN") and the permits have been received, a contractor will be chosen to perform the following (this is a high level list of activities):

- Mobilization
- Clearing and grubbing of the landfill and borrow areas
- Construction of stormwater/sediment ponds
- Grade work to attain the proper subgrade of the landfill
- Development of the borrow site(s)
- Installation of the liner system
- Installation of the leachate collection system, ponds, as well as the transfer system
- Construction of new site access roads
- Installation of the gypsum fines systems
- Construction of the CCP transfer storage facility across US-42
- Installation of the pipe conveyor
- Construction of the Gypsum Dewatering facility
- Upgrades to existing CCP transfer systems
- De-mobilization

Exhibit JNV-10 consists of two GAI Consultants reports on the initial siting study and conceptual design of the Ghent station landfill and is on the compact disc included with this testimony. Exhibit JNV-10 provides more details associated with this project.

Q. Is KU requesting a CPCN for the proposed landfill at Ghent (Project 30)?

A. Yes, as discussed in the testimony of Mr. Bellar, KU is requesting a CPCN for Project 30 in Exhibit JNV-1. Project 30 is associated with the construction of a new landfill and supporting systems at the Ghent station.

Q. Why is KU seeking a CPCN for Project 30, the proposed Ghent landfill at this time?

A. As discussed in Exhibit CRS-3 of Mr. Schram's testimony, KU's Ghent station produces three (3) coal combustion byproducts: bottom ash, fly ash and gypsum. The station has two (2) existing on-site treatment basins for ash and two (2) stacking areas for gypsum. Basin #1 is at its maximum desired capacity. As discussed in Exhibit CRS-3, Basin #2 and the gypsum stack facilities are both forecasted to reach their maximum desired capacity in 2012. In accordance with the CCP Strategy and the analysis presented in Mr. Schram's testimony, the recommended long-term CCP management alternative is Project 30, a landfill for all CCP material. The preliminary construction schedule for this project requires construction of the landfill to begin in 2010. As such, KU is requesting a CPCN in support of this project.

Q. What alternatives to the proposed project were evaluated?

A. The Initial Siting Study identified 42 potential alternatives based on combinations of variables including

- storage and CCP transport methods

- site locations
- transmission line relocation needs

Consistent with the CCP Strategy, opportunities for beneficial reuse were also evaluated by the Companies. The beneficial reuse alternatives at Ghent are discussed in Project 33. Mr. Schram's testimony provides details associated with the evaluation of the alternatives at Ghent.

Q. Is the proposed new on-site landfill at Ghent (Project 30) consistent with the Companies' strategy for long-term management of CCP?

A. Yes. The landfill ensures adequate on-site CCP management capacity exists for the long-term and will be constructed in multiple phases. Furthermore, as discussed in Mr. Schram's testimony, analytical assessments have been performed to identify and utilize any cost effective beneficial reuse alternatives in order to minimize environmental impact and promote environmental stewardship.

Q. Is this project a cost-effective means of complying with environmental regulations and permits?

A. Yes. Project 30 provides the best means of compliance with discharge and water quality regulations. Mr. Schram's testimony provides details associated with the economics of this project.

Project 31 -- Trimble County Station
Ash Treatment Basin and Gypsum Storage Pond

Q. Please describe the Trimble County Station Ash Treatment Basin and Gypsum Storage Pond (Project 31), the anticipated cost and the associated timeline.

A. The primary CCP managed at the Trimble County station are bottom ash, fly ash and gypsum, all of which are currently managed either through treatment in the 85 acre

EXHIBIT D

Revenue Requirments Summary
Gypsum Disposal at Sterling Materials

			2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Revenue Requirement													
Eligible Plant			$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 203,254,220	$ 203,969,979	$ 203,969,979	$ 248,969,979
Less Gypsum Plant			$ -	$ (14,090,000)	$ (40,060,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (98,110,000)
Revised Eligible Plant			$ 4,321,671	$ 32,388,846	$ 65,425,803	$ 124,467,356	$ 138,023,918	$ 148,831,953	$ 149,468,976	$ 150,144,220	$ 150,859,979	$ 150,859,979	$ 150,859,979
Less Accumulated Depreciation							$ (3,690,414)	$ (7,842,826)	$ (12,013,010)	$ (16,202,034)	$ (20,411,027)	$ (24,620,020)	$ (28,829,013)
Less Deferred Tax Balance							$ (528,683)	$ (2,857,926)	$ (4,921,730)	$ (6,731,945)	$ (8,301,165)	$ (9,641,200)	$ (11,289,441)
Environmental Compliance Rate Base			$ 4,321,671	$ 32,388,846	$ 65,425,803	$ 124,467,356	$ 133,804,821	$ 138,131,202	$ 132,534,236	$ 127,210,241	$ 122,147,788	$ 116,598,759	$ 110,741,525
Rate of Return			11.1%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
Assumed Tons (1.155)	1,000,000		$ 480,509	$ 3,553,056	$ 7,177,211	$ 13,654,069	$ 14,678,389	$ 15,152,993	$ 14,539,006	$ 13,954,963	$ 13,399,612	$ 12,790,884	$ 12,148,345
86.7500% Cubic yards	867,500												
Operating Expenses			$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,556
less Gypsum to On-site Landfill							$ (8,887,032)	$ (9,420,254)	$ (9,985,469)	$ (10,584,598)	$ (11,219,674)	$ (11,892,854)	$ (12,606,425)
Gypsum to Sterling	**$ 10.50**						$ 10,500,000	$ 11,130,000	$ 11,797,800	$ 12,505,668	$ 13,256,008	$ 14,051,369	$ 14,894,451
Net Operating			$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 20,616,276	$ 21,853,253	$ 23,164,448	$ 24,554,314	$ 26,027,573	$ 27,589,228	$ 29,244,581
Annual Depreciation							$ 3,690,414	$ 4,152,411	$ 4,170,184	$ 4,189,024	$ 4,208,993	$ 4,208,993	$ 4,208,993
Annual Property Tax Expense				$ 6,483	$ 69,718	$ 158,229	$ 266,366	$ 279,017	$ 286,798	$ 279,274	$ 271,751	$ 264,317	$ 264,317
Total OE			$ 84,800	$ 127,832	$ 198,348	$ 294,577	$ 24,573,056	$ 26,284,681	$ 27,621,430	$ 29,022,612	$ 30,508,317	$ 32,062,537	$ 33,717,891
Total E(m) Gypsum to Sterling		$ 476,298,826	$ 565,309	$ 3,680,888	$ 7,375,559	$ 13,948,646	$ 39,251,445	$ 41,437,674	$ 42,160,436	$ 42,977,575	$ 43,907,929	$ 44,853,421	$ 45,866,236
Total E(m) - Project 30 (See below)		$ 555,782,375	$ 565,309	$ 5,226,225	$ 11,769,378	$ 19,773,528	$ 44,705,239	$ 46,600,208	$ 46,976,843	$ 47,458,553	$ 48,044,547	$ 48,653,648	$ 55,312,476
Difference **PVRR**	**7.81%**	**$ (79,483,549)**	$ -	$ (1,545,337)	$ (4,393,819)	$ (5,824,882)	$ (5,453,794)	$ (5,162,534)	$ (4,816,407)	$ (4,480,978)	$ (4,136,618)	$ (3,800,227)	$ (9,446,240)
Date			12/31/2009	12/31/2010	12/31/2011	12/31/2012	12/31/2013	12/31/2014	12/31/2015	12/31/2016	12/31/2017	12/31/2018	12/31/2019

Revenue Requirments Summary
2009 Amended Plan
Project 30 Ghent Landfill Phase I
See Exhibit B

			2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
													Start Phase II
Revenue Requirement													$ 40,000,000
Eligible Plant			$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 203,254,220	$ 203,969,979	$ 203,969,979	$ 248,969,979
Less Gypsum Plant			$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Revised Eligible Plant			$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 203,254,220	$ 203,969,979	$ 203,969,979	$ 248,969,979
Less Accumulated Depreciation							$ (5,110,443)	$ (10,744,623)	$ (16,396,576)	$ (22,067,369)	$ (27,758,131)	$ (33,448,893)	$ (40,395,155)
Less Deferred Tax Balance							$ (732,114)	$ (3,915,341)	$ (6,717,677)	$ (9,168,992)	$ (11,289,232)	$ (13,098,586)	$ (15,818,743)
Environmental Compliance Rate Base			$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 185,291,361	$ 187,281,989	$ 179,464,723	$ 172,017,859	$ 164,922,616	$ 157,422,500	$ 192,756,081
Rate of Return			11.1%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
			$ 480,509	$ 5,098,729	$ 11,571,793	$ 19,480,236	$ 20,326,462	$ 20,544,834	$ 19,687,280	$ 18,870,359	$ 18,092,011	$ 17,269,248	$ 21,145,342
Operating Expenses			$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,555.78
less Gypsum to On-site Landfill							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Gypsum to Sterling							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Net Operating			$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,556
Annual Depreciation							$ 5,110,443	$ 5,634,180	$ 5,651,953	$ 5,670,793	$ 5,690,762	$ 5,690,762	$ 6,946,262
Annual Property Tax Expense				$ 6,483	$ 69,718	$ 158,229	$ 266,366	$ 279,017	$ 286,798	$ 279,274	$ 271,751	$ 264,317	$ 264,317
Total OE			$ 84,800	$ 127,832	$ 198,348	$ 294,577	$ 24,380,117	$ 26,056,704	$ 27,290,868	$ 28,583,311	$ 29,953,752	$ 31,385,792	$ 34,167,134
Total E(m) Gypsum to On-site Landfill as Calculated			$ 565,309	$ 5,226,561	$ 11,770,141	$ 19,774,813	$ 44,706,579	$ 46,601,539	$ 46,978,148	$ 47,453,670	$ 48,045,763	$ 48,655,040	$ 55,312,476
Total E(m) Gypsum to On-site Landfill per KU			$ 565,309	$ 5,226,225	$ 11,769,378	$ 19,773,528	$ 44,705,239	$ 46,600,208	$ 46,976,843	$ 47,458,553	$ 48,044,547	$ 48,653,648	
Calculation Check Difference			$ -	$ 336	$ 763	$ 1,285	$ 1,340	$ 1,331	$ 1,305	$ (4,883)	$ 1,216	$ 1,392	
Site E/F Hauling cost of Ash 2.25 mile round trip							$ 2,822,723	$ 2,992,086	$ 3,171,612	$ 3,361,908	$ 3,563,623	$ 3,777,440	$ 4,004,087
Haul Road Maintenance							$ 53,529	$ 56,741	$ 60,145	$ 63,754	$ 67,579	$ 71,634	$ 75,932
Total							$ 2,876,252	$ 3,048,827	$ 3,231,757	$ 3,425,662	$ 3,631,202	$ 3,849,074	$ 4,080,018
Reduce by 50% for Site M			$ -	$ -	$ -	$ -	$ 1,438,126	$ 1,524,414	$ 1,615,878	$ 1,712,831	$ 1,815,601	$ 1,924,537	$ 2,040,009
Difference **PVRR**	**7.81%**	**$ (21,865,903)**											

Revenue Requirments Summary
Gypsum Disposal at Sterling Materials

			2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
													Start Phase II
Revenue Requirement													$ 40,000,000
Eligible Plant			$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 323,969,979	$ 353,969,979	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
Less Gypsum Plant			$ (133,110,000)	$ (133,110,000)	$ (133,110,000)	$ (133,110,000)	$ (133,110,000)	$ (173,110,000)	$ (203,110,000)	$ (209,140,021)	$ (209,140,021)	$ (209,140,021)	$ (169,140,021)
Revised Eligible Plant			$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 190,859,979
Less Accumulated Depreciation			$ (33,038,006)	$ (37,246,999)	$ (41,455,992)	$ (45,664,985)	$ (49,873,978)	$ (54,082,972)	$ (58,291,965)	$ (62,500,958)	$ (66,709,951)	$ (70,918,944)	$ (76,243,937)
Less Deferred Tax Balance			$ (12,937,683)	$ (14,585,925)	$ (16,234,167)	$ (17,882,408)	$ (19,530,650)	$ (21,178,892)	$ (22,827,133)	$ (24,475,375)	$ (26,123,617)	$ (27,771,858)	$ (29,857,126)
Environmental Compliance Rate Base			$ 104,884,290	$ 99,027,055	$ 93,169,820	$ 87,312,585	$ 81,455,351	$ 75,598,116	$ 69,740,881	$ 63,883,646	$ 58,026,411	$ 52,169,177	$ 84,758,916
Rate of Return			10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
Assumed Tons (1.155)		1,000,000	$ 11,505,807	$ 10,863,268	$ 10,220,729	$ 9,578,191	$ 8,935,652	$ 8,293,113	$ 7,650,575	$ 7,008,036	$ 6,365,497	$ 5,722,959	$ 9,298,053
86.7500% Cubic yards		867,500											
Operating Expenses			$ 28,573,949	$ 30,288,386	$ 32,105,689	$ 34,032,031	$ 36,073,952	$ 38,238,390	$ 40,532,693	$ 42,964,655	$ 45,542,534	$ 48,275,086	$ 51,171,591
less Gypsum to On-site Landfill			$ (13,362,811)	$ (14,164,579)	$ (15,014,454)	$ (15,915,321)	$ (16,870,241)	$ (17,882,455)	$ (18,955,402)	$ (20,092,727)	$ (21,298,290)	$ (22,576,188)	$ (23,930,759)
Gypsum to Sterling	**$**	**10.50**	$ 15,788,118	$ 16,735,405	$ 17,739,529	$ 18,803,901	$ 19,932,135	$ 21,128,063	$ 22,395,747	$ 23,739,492	$ 25,163,861	$ 26,673,693	$ 28,274,114
Net Operating			$ 30,999,256	$ 32,859,211	$ 34,830,764	$ 36,920,610	$ 39,135,847	$ 41,483,997	$ 43,973,037	$ 46,611,419	$ 49,408,105	$ 52,372,591	$ 55,514,946
Annual Depreciation			$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 5,324,993
Annual Property Tax Expense			$ 322,630	$ 367,985	$ 367,985	$ 367,985	$ 367,985	$ 367,985	$ 419,820	$ 458,696	$ 466,510	$ 466,510	$ 466,510
Total OE			$ 35,530,879	$ 37,436,190	$ 39,407,743	$ 41,497,588	$ 43,712,825	$ 46,060,976	$ 48,601,850	$ 51,279,108	$ 54,083,607	$ 57,048,094	$ 61,306,449
Total E(m) Gypsum to Sterling		$ 476,298,826	$ 47,036,686	$ 48,299,458	$ 49,628,472	$ 51,075,779	$ 52,648,477	$ 54,354,089	$ 56,252,425	$ 58,287,144	$ 60,449,105	$ 62,771,052	$ 70,604,502
Total E(m) - Project 30 (See below)		$ 555,782,375	$ 60,594,706	$ 61,145,021	$ 61,752,847	$ 62,469,712	$ 63,302,156	$ 69,590,749	$ 74,557,268	$ 76,324,534	$ 77,376,925	$ 78,576,175	$ 79,939,378
Difference	**PVRR**	**7.81% $ (79,483,549)**	$ (13,558,020)	$ (12,845,563)	$ (12,124,375)	$ (11,393,932)	$ (10,653,679)	$ (15,236,660)	$ (18,304,843)	$ (18,037,390)	$ (16,927,821)	$ (15,805,123)	$ (9,334,876)
Date			12/31/2020	12/31/2021	12/31/2022	12/31/2023	12/31/2024	12/31/2025	12/31/2026	12/31/2027	12/31/2028	12/31/2029	12/31/2030

Revenue Requirments Summary
2009 Amended Plan
Project 30 Ghent Landfill Phase I
See Exhibit B

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
						Start Phase III					
Revenue Requirement	$ 40,000,000					$ 40,000,000	$ 30,000,000	$ 6,030,021			
Eligible Plant	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 323,969,979	$ 353,969,979	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
Less Gypsum Plant	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Revised Eligible Plant	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 323,969,979	$ 353,969,979	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
Less Accumulated Depreciation	$ (48,317,917)	$ (56,240,679)	$ (64,163,440)	$ (72,086,202)	$ (80,008,964)	$ (89,047,726)	$ (98,923,488)	$ (108,967,487)	$ (119,011,486)	$ (129,055,485)	$ (139,099,485)
Less Deferred Tax Balance	$ (18,921,296)	$ (22,023,850)	$ (25,126,403)	$ (28,228,957)	$ (31,331,510)	$ (34,871,089)	$ (38,738,438)	$ (42,671,668)	$ (46,604,898)	$ (50,538,128)	$ (54,471,358)
Environmental Compliance Rate Base	$ 216,730,766	$ 205,705,451	$ 194,680,135	$ 183,654,820	$ 172,629,505	$ 200,051,164	$ 216,308,054	$ 208,360,845	$ 194,383,616	$ 180,406,387	$ 166,429,157
Rate of Return	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
	$ 23,775,365	$ 22,565,888	$ 21,356,411	$ 20,146,934	$ 18,937,457	$ 21,945,613	$ 23,728,993	$ 22,857,185	$ 21,323,883	$ 19,790,581	$ 18,257,279
Operating Expenses	$ 28,573,949.13	$ 30,288,386.07	$ 32,105,689.24	$ 34,032,030.59	$ 36,073,952.43	$ 38,238,389.57	$ 40,532,692.95	$ 42,964,654.53	$ 45,542,533.80	$ 48,275,085.83	$ 51,171,590.97
less Gypsum to On-site Landfill	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Gypsum to Sterling	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Net Operating	$ 28,573,949	$ 30,288,386	$ 32,105,689	$ 34,032,031	$ 36,073,952	$ 38,238,390	$ 40,532,693	$ 42,964,655	$ 45,542,534	$ 48,275,086	$ 51,171,591
Annual Depreciation	$ 7,922,762	$ 7,922,762	$ 7,922,762	$ 7,922,762	$ 7,922,762	$ 9,038,762	$ 9,875,762	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999
Annual Property Tax Expense	$ 322,630	$ 367,985	$ 367,985	$ 367,985	$ 367,985	$ 419,820	$ 458,696	$ 466,510	$ 466,510	$ 466,510	$ 466,510
Total OE	$ 36,819,341	$ 38,579,133	$ 40,396,436	$ 42,322,778	$ 44,364,700	$ 47,645,137	$ 50,828,274	$ 53,467,349	$ 56,053,043	$ 58,785,595	$ 61,682,100
Total E(m) Gypsum to On-site Landfill as Calculated	$ 60,594,706	$ 61,145,021	$ 61,752,847	$ 62,469,712	$ 63,302,156	$ 69,590,749	$ 74,557,268	$ 76,324,534	$ 77,376,925	$ 78,576,175	$ 79,939,378
Total E(m) Gypsum to On-site Landfill per KU											
Calculation Check Difference											
Site E/F Hauling cost of Ash 2.25 mile round trip	$ 4,244,332	$ 4,498,992	$ 4,768,931	$ 5,055,067	$ 5,358,371	$ 5,679,873	$ 6,020,666	$ 6,381,906	$ 6,764,820	$ 7,170,709	$ 7,600,952
Haul Road Maintenance	$ 80,488	$ 85,317	$ 90,436	$ 95,862	$ 101,614	$ 107,711	$ 114,174	$ 121,024	$ 128,285	$ 135,982	$ 144,141
Total	$ 4,324,820	$ 4,584,309	$ 4,859,367	$ 5,150,929	$ 5,459,985	$ 5,787,584	$ 6,134,839	$ 6,502,930	$ 6,893,105	$ 7,306,692	$ 7,745,093
Reduce by 50% for Site M	$ 2,162,410	$ 2,292,154	$ 2,429,684	$ 2,575,465	$ 2,729,993	$ 2,893,792	$ 3,067,420	$ 3,251,465	$ 3,446,553	$ 3,653,346	$ 3,872,547

Difference **PVRR** **7.81% $ (21,865,903)**

Revenue Requirments Summary
Gypsum Disposal at Sterling Materials

			2031	2032	2033	2034	2035	2036	2037	
Revenue Requirement			$ 40,000,000							
Eligible Plant			$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	
Less Gypsum Plant			$ (129,140,021)	$ (129,140,021)	$ (129,140,021)	$ (129,140,021)	$ (129,140,021)	$ (129,140,021)	$ (129,140,021)	
Revised Eligible Plant			$ 230,859,979	$ 230,859,979	$ 230,859,979	$ 230,859,979	$ 230,859,979	$ 230,859,979	$ 230,859,979	
Less Accumulated Depreciation			$ (82,684,930)	$ (89,125,923)	$ (95,566,916)	$ (102,007,909)	$ (108,448,902)	$ (114,889,895)	$ (121,330,888)	
Less Deferred Tax Balance			$ (32,379,419)	$ (34,901,711)	$ (37,424,004)	$ (39,946,297)	$ (42,468,590)	$ (44,990,883)	$ (47,513,176)	
Environmental Compliance Rate Base			$ 115,795,631	$ 106,832,345	$ 97,869,059	$ 88,905,773	$ 79,942,487	$ 70,979,202	$ 62,015,916	
Rate of Return			10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	
Assumed	Tons (1.155)	1,000,000	$ 12,702,781	$ 11,719,508	$ 10,736,236	$ 9,752,963	$ 8,769,691	$ 7,786,418	$ 6,803,146	
86.7500%	Cubic yards	867,500								
Operating Expenses			$ 54,241,886	$ 57,496,400	$ 60,946,184	$ 64,602,955	$ 68,479,132	$ 72,587,880	$ 76,943,153	
less Gypsum to On-site Landfill			$ (25,366,604)	$ (26,888,601)	$ (28,501,917)	$ (30,212,032)	$ (32,024,754)	$ (33,946,239)	$ (35,983,013)	
Gypsum to Sterling		**$ 10.50**	$ 29,970,561	$ 31,768,795	$ 33,674,922	$ 35,695,418	$ 37,837,143	$ 40,107,371	$ 42,513,814	
Net Operating			$ 58,845,843	$ 62,376,594	$ 66,119,189	$ 70,086,341	$ 74,291,521	$ 78,749,012	$ 83,473,953	
Annual Depreciation			$ 6,440,993	$ 6,440,993	$ 6,440,993	$ 6,440,993	$ 6,440,993	$ 6,440,993	$ 6,440,993	
Annual Property Tax Expense			$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	
Total OE			$ 65,753,346	$ 69,284,096	$ 73,026,692	$ 76,993,843	$ 81,199,024	$ 85,656,515	$ 90,381,456	
Total E(m) Gypsum to Sterling		$ 476,298,826	$ 78,456,126	$ 81,003,604	$ 83,762,928	$ 86,746,807	$ 89,968,715	$ 93,442,933	$ 97,184,602	$ 1,547,998,022
Total E(m) - Project 30 (See below)		$ 555,782,375	$ 81,476,372	$ 83,197,583	$ 85,114,065	$ 87,237,534	$ 89,580,409	$ 92,155,855	$ 94,977,826	$ 1,754,455,070
Difference	**PVRR**	**7.81% $ (79,483,549)**	$ (3,020,245)	$ (2,193,978)	$ (1,351,137)	$ (490,727)	$ 388,306	$ 1,287,079	$ 2,206,776	$ (206,457,048)
Date			12/31/2031	12/31/2032	12/31/2033	12/31/2034	12/31/2035	12/31/2036	12/31/2037	
										$ (206,457,048)

Revenue Requirments Summary
2009 Amended Plan
Project 30 Ghent Landfill Phase I
See Exhibit B

			2031	2032	2033	2034	2035	2036	2037
Revenue Requirement									
Eligible Plant			$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
Less Gypsum Plant			$ -	$ -	$ -	$ -	$ -	$ -	$ -
Revised Eligible Plant			$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
Less Accumulated Depreciation			$ (149,143,484)	$ (159,187,483)	$ (169,231,482)	$ (179,275,482)	$ (189,319,481)	$ (199,363,480)	$ (209,407,479)
Less Deferred Tax Balance			$ (58,404,588)	$ (62,337,818)	$ (66,271,048)	$ (70,204,279)	$ (74,137,509)	$ (78,070,739)	$ (82,003,969)
Environmental Compliance Rate Base			$ 152,451,928	$ 138,474,699	$ 124,497,469	$ 110,520,240	$ 96,543,010	$ 82,565,781	$ 68,588,552
Rate of Return			10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
			$ 16,723,976	$ 15,190,674	$ 13,657,372	$ 12,124,070	$ 10,590,768	$ 9,057,466	$ 7,524,164
Operating Expenses			$ 54,241,886.43	$ 57,496,399.62	$ 60,946,183.60	$ 64,602,954.61	$ 68,479,131.89	$ 72,587,879.80	$ 76,943,152.59
less Gypsum to On-site Landfill			$ -	$ -	$ -	$ -	$ -	$ -	$ -
Gypsum to Sterling			$ -	$ -	$ -	$ -	$ -	$ -	$ -
Net Operating			$ 54,241,886	$ 57,496,400	$ 60,946,184	$ 64,602,955	$ 68,479,132	$ 72,587,880	$ 76,943,153
Annual Depreciation			$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999
Annual Property Tax Expense			$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510
Total OE			$ 64,752,395	$ 68,006,908	$ 71,456,692	$ 75,113,463	$ 78,989,641	$ 83,098,389	$ 87,453,661
Total E(m) Gypsum to On-site Landfill as Calculated			$ 81,476,372	$ 83,197,583	$ 85,114,065	$ 87,237,534	$ 89,580,409	$ 92,155,855	$ 94,977,826
Total E(m) Gypsum to On-site Landfill per KU									
Calculation Check Difference									
Site E/F	Hauling cost of Ash 2.25 mile round trip		$ 8,057,009	$ 8,540,429	$ 9,052,855	$ 9,596,026	$ 10,171,788	$ 10,782,095	$ 11,429,021
	Haul Road Maintenance		$ 152,790	$ 161,957	$ 171,675	$ 181,975	$ 192,894	$ 204,467	$ 216,735
Total			$ 8,209,799	$ 8,702,387	$ 9,224,530	$ 9,778,002	$ 10,364,682	$ 10,986,563	$ 11,645,756
Reduce by 50% for Site M			$ 4,104,899	$ 4,351,193	$ 4,612,265	$ 4,889,001	$ 5,182,341	$ 5,493,281	$ 5,822,878
Difference	**PVRR**	**7.81% $ (21,865,903)**							

EXHIBIT E

GHENT LANDFILL (PHASE I)

Operating & Maintenance Costs ($)	2010	2011	2012	2013	2014	2015	2016	2017
Ground Water Sampling and Testing	14,045	14,888	15,781	16,728	17,731	18,795	19,923	21,118
Leachate Management	-	-	-	83,639	88,657	93,977	99,616	105,592
Surveying (As-builts)	16,292	17,270	18,306	19,404	20,569	21,803	23,111	24,497
Pump House Fly Ash and Bottom Ash Segregation	75,843	80,394	85,217	-	-	-	-	-
Dry Ash/Pyrites Handling System - Conveyor	-	-	-	2,161,234	2,290,908	2,428,363	2,574,065	2,728,509
Dry Gypsum Handling System	-	-	-	682,495	723,445	766,851	812,863	861,634
Leachate Pump House	15,169	16,079	17,043	18,066	19,150	20,299	21,517	22,808
Hauling Fly Ash and Bottom Ash to Landfill								
Loading	-	-	-	1,338,226	1,418,519	1,503,630	1,593,848	1,689,479
Phase 1 - 2.25 Mile Round Trip	-	-	-	2,822,723	2,992,087	3,171,612	3,361,909	3,563,623
Hauling Gypsum to Landfill								
Loading	-	-	-	1,746,384	1,851,167	1,962,237	2,079,972	2,204,770
Phase 1 - 2.25 Mile Round Trip	-	-	-	3,997,156	4,236,986	4,491,205	4,760,677	5,046,318
Landfilling Fly Ash and Bottom Ash	-	-	-	2,408,806	2,553,334	2,706,534	2,868,927	3,041,062
Landfilling Gypsum	-	-	-	3,143,492	3,332,101	3,532,027	3,743,949	3,968,586
Ash/Gypsum Placement QA/QC	-	-	-	54,198	57,450	60,897	64,551	68,424
Maintenance								
Landfills	-	-	-	301,101	319,167	338,317	358,616	380,133
Haul Roads	-	-	-	53,529	56,741	60,145	63,754	67,579
Dust Control	-	-	-	156,126	165,494	175,424	185,949	197,106
TOTAL	**121,349**	**128,630**	**136,348**	**19,003,308**	**20,143,507**	**21,352,117**	**22,633,244**	**23,991,239**

EXHIBIT F

GHENT LANDFILL (PHASE I)

Capital Expenditures ($ million)	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Total
Property Acquisition											
Disposal Site(s)	-	-	4.66	-	-	-	-	-	-	-	**4.66**
Overhead Electric Line(s)	-	-	0.03	-	-	-	-	-	-	-	**0.03**
Buffer Zones	-	-	-	-	2.37	-	-	-	-	-	**2.37**
Higher End House Acquisition	-	-	1.40	-	-	-	-	-	-	-	**1.40**
Engineering, Permits and Fees, and Construction Documents	0.46	2.00	-	-	-	-	-	-	-	-	**2.46**
Stream and Wetland Mitigation	-	-	4.14	-	-	-	-	-	-	-	**4.14**
Ground Water Monitoring System	-	0.27	-	-	-	-	-	-	-	-	**0.27**
Transmission Line Relocation Design, Engineering, and Construction	-	-	-	-	0.82	-	-	-	-	-	**0.82**
CCWD Relocation	-	-	0.12	-	-	-	-	-	-	-	**0.12**
Pump House Fly Ash and Bottom Ash Segregation	-	0.72	-	-	-	-	-	-	-	-	**0.72**
Dry Ash/Pyrites Handling System - Conveyor	-	-	16.29	27.08	38.93	-	-	-	-	-	**82.31**
Dry Gypsum Handling System	-	-	7.79	15.96	13.05	-	-	-	-	-	**36.80**
Gypsum Fines Project	-	0.74	6.30	6.30	-	-	-	-	-	-	**13.34**
Initial Site Preparation											
Clearing, Grubbing, and Site Preparation	-	-	-	0.62	0.65	0.69	-	-	-	-	**1.96**
Stripping and Stockpiling Soil	-	-	-	0.50	0.53	0.56	-	-	-	-	**1.58**
Hauling Topsoil - Phase 1 - 1.0 Mile Round Trip	-	-	-	0.19	0.20	0.21	-	-	-	-	**0.59**
Erosion and Sedimentation Controls	-	-	-	0.06	0.06	0.06	-	-	-	-	**0.18**
Sedimentation Pond	-	-	-	0.33	-	-	-	-	-	-	**0.33**
Collection Channels (Fabriform)	-	-	-	0.36	0.38	0.40	-	-	-	-	**1.15**
Diversion Channels (Riprap)	-	-	-	0.11	0.12	0.12	-	-	-	-	**0.35**
Liner Subgrade Preparation											
Scraping and Hauling - 0.25 Mile Round Trip	-	-	-	0.32	0.33	0.35	-	-	-	-	**1.01**
Excavating	-	-	-	0.15	0.16	0.17	-	-	-	-	**0.49**
Hauling Subgrade - Phase 1 - 1.0 Mile Round Trip	-	-	-	0.31	0.33	0.35	-	-	-	-	**0.99**
Spreading and Compacting Subgrade	-	-	-	0.49	0.52	0.55	-	-	-	-	**1.57**
Subgrade QA/QC	-	-	-	0.24	0.25	0.27	-	-	-	-	**0.76**
Gypsum Dewatering Facility Earthwork											
Excavating	-	-	-	0.73	-	-	-	-	-	-	**0.73**
Hauling Earth - 1.0 Mile Round Trip	-	-	-	1.53	-	-	-	-	-	-	**1.53**
Spreading and Compacting	-	-	-	1.21	-	-	-	-	-	-	**1.21**
Earthwork QA/QC	-	-	-	0.24	-	-	-	-	-	-	**0.24**

GHENT LANDFILL (PHASE I)

Capital Expenditures ($ million)	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Total
Haul Roads											
CCP Disposal On-Landfill Haul Road (60 Feet Wide)	-	-	-	-	0.61	0.05	0.05	0.05	0.05	0.06	**0.87**
CCP Disposal Off-Landfill Haul Road (60 Feet Wide)	-	-	-	0.30	1.03	-	-	-	-	-	**1.33**
Liner											
Landfill - Single Liner System	-	-	-	-	7.00	7.43	7.87	-	-	-	**22.30**
Liner System QA/QC	-	-	-	-	1.23	1.30	1.38	-	-	-	**3.90**
Leachate Collector Line	-	-	-	-	0.19	0.20	0.21	-	-	-	**0.60**
On-Landfill Leachate Trunk Line	-	-	-	-	0.08	0.08	0.09	-	-	-	**0.25**
Off-Landfill Leachate Trunk Line	-	-	-	-	0.07	-	-	-	-	-	**0.07**
Leachate Storage Pond	-	-	-	-	0.29	-	-	-	-	-	**0.29**
Leachate Pump House	-	-	-	-	0.09	-	-	-	-	-	**0.09**
Leachate Pipe Line	-	-	-	-	0.08	-	-	-	-	-	**0.08**
Underdrains - Trunk	-	-	-	-	0.17	0.18	0.19	-	-	-	**0.54**
Underdrains - Collector	-	-	-	-	0.11	0.12	0.12	-	-	-	**0.35**
Cap											
Intermediate Soil Cover	-	-	-	-	-	-	0.28	0.30	0.32	0.34	**1.24**
Cap System	-	-	-	-	-	-	0.22	0.23	0.25	0.26	**0.96**
Cap System QA/QC	-	-	-	-	-	-	0.03	0.03	0.03	0.03	**0.12**
Total	**0.46**	**3.72**	**40.73**	**57.01**	**69.65**	**13.10**	**10.44**	**0.62**	**0.65**	**0.69**	**197.07**
E.ON-US Overheads	0.02	0.13	1.43	2.00	2.44	0.46	0.37	0.02	0.02	0.02	**6.90**
Total with Overheads	**0.47**	**3.85**	**42.16**	**59.01**	**72.09**	**13.56**	**10.81**	**0.64**	**0.68**	**0.72**	**203.97**

EXHIBIT G

Revenue Requirments Summary
Gypsum Disposal at Sterling Materials

			2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Revenue Requirement													
Eligible Plant			$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 203,254,220	$ 203,969,979	$ 203,969,979	$ 248,969,979
Less Gypsum Plant			$ -	$ (14,090,000)	$ (40,060,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (98,110,000)
Revised Eligible Plant			$ 4,321,671	$ 32,388,846	$ 65,425,803	$ 124,467,356	$ 138,023,918	$ 148,831,953	$ 149,468,976	$ 150,144,220	$ 150,859,979	$ 150,859,979	$ 150,859,979
Less Accumulated Depreciation							$ (3,690,414)	$ (7,842,826)	$ (12,013,010)	$ (16,202,034)	$ (20,411,027)	$ (24,620,020)	$ (28,829,013)
Less Deferred Tax Balance							$ (528,683)	$ (2,857,926)	$ (4,921,730)	$ (6,731,945)	$ (8,301,165)	$ (9,641,200)	$ (11,289,441)
Environmental Compliance Rate Base			$ 4,321,671	$ 32,388,846	$ 65,425,803	$ 124,467,356	$ 133,804,821	$ 138,131,202	$ 132,534,236	$ 127,210,241	$ 122,147,788	$ 116,598,759	$ 110,741,525
Rate of Return			11.1%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
Assumed Tons (1.155)	1,000,000		$ 480,509	$ 3,553,056	$ 7,177,211	$ 13,654,069	$ 14,678,389	$ 15,152,993	$ 14,539,006	$ 13,954,963	$ 13,399,612	$ 12,790,884	$ 12,148,345
86.7500% Cubic yards	867,500												
Operating Expenses			$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,556
less Gypsum to On-site Landfill							$ (8,887,032)	$ (9,420,254)	$ (9,985,469)	$ (10,584,598)	$ (11,219,674)	$ (11,892,854)	$ (12,606,425)
Gypsum to Sterling	**$ 9.00**						$ 9,000,000	$ 9,540,000	$ 10,112,400	$ 10,719,144	$ 11,362,293	$ 12,044,030	$ 12,766,672
Net Operating			$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,116,276	$ 20,263,253	$ 21,479,048	$ 22,767,790	$ 24,133,858	$ 25,581,889	$ 27,116,803
Annual Depreciation							$ 3,690,414	$ 4,152,411	$ 4,170,184	$ 4,189,024	$ 4,208,993	$ 4,208,993	$ 4,208,993
Annual Property Tax Expense				$ 6,483	$ 69,718	$ 158,229	$ 266,366	$ 279,017	$ 286,798	$ 279,274	$ 271,751	$ 264,317	$ 264,317
Total OE			$ 84,800	$ 127,832	$ 198,348	$ 294,577	$ 23,073,056	$ 24,694,681	$ 25,936,030	$ 27,236,088	$ 28,614,602	$ 30,055,199	$ 31,590,112
Total E(m) Gypsum to Sterling		$ 453,492,164	$ 565,309	$ 3,680,888	$ 7,375,559	$ 13,948,646	$ 37,751,445	$ 39,847,674	$ 40,475,036	$ 41,191,051	$ 42,014,214	$ 42,846,083	$ 43,738,457
Total E(m) - Project 30 (See below)		$ 555,782,375	$ 565,309	$ 5,226,225	$ 11,769,378	$ 19,773,528	$ 44,705,239	$ 46,600,208	$ 46,976,843	$ 47,458,553	$ 48,044,547	$ 48,653,648	$ 55,312,476
Difference **PVRR**	**7.81%**	**$ (102,290,212)**	$ -	$ (1,545,337)	$ (4,393,819)	$ (5,824,882)	$ (6,953,794)	$ (6,752,534)	$ (6,501,807)	$ (6,267,502)	$ (6,030,333)	$ (5,807,565)	$ (11,574,019)
Date			12/31/2009	12/31/2010	12/31/2011	12/31/2012	12/31/2013	12/31/2014	12/31/2015	12/31/2016	12/31/2017	12/31/2018	12/31/2019

Revenue Requirments Summary
2009 Amended Plan
Project 30 Ghent Landfill Phase I
See Exhibit B

			2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
													Start Phase II
Revenue Requirement													$ 40,000,000
Eligible Plant			$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 203,254,220	$ 203,969,979	$ 203,969,979	$ 248,969,979
Less Gypsum Plant			$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Revised Eligible Plant			$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 203,254,220	$ 203,969,979	$ 203,969,979	$ 248,969,979
Less Accumulated Depreciation							$ (5,110,443)	$ (10,744,623)	$ (16,396,576)	$ (22,067,369)	$ (27,758,131)	$ (33,448,893)	$ (40,395,155)
Less Deferred Tax Balance							$ (732,114)	$ (3,915,341)	$ (6,717,677)	$ (9,168,992)	$ (11,289,232)	$ (13,098,586)	$ (15,818,743)
Environmental Compliance Rate Base			$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 185,291,361	$ 187,281,989	$ 179,464,723	$ 172,017,859	$ 164,922,616	$ 157,422,500	$ 192,756,081
Rate of Return			11.1%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
			$ 480,509	$ 5,098,729	$ 11,571,793	$ 19,480,236	$ 20,326,462	$ 20,544,834	$ 19,687,280	$ 18,870,359	$ 18,092,011	$ 17,269,248	$ 21,145,342
Operating Expenses			$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,555.78
less Gypsum to On-site Landfill							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Gypsum to Sterling							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Net Operating			$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,556
Annual Depreciation							$ 5,110,443	$ 5,634,180	$ 5,651,953	$ 5,670,793	$ 5,690,762	$ 5,690,762	$ 6,946,262
Annual Property Tax Expense				$ 6,483	$ 69,718	$ 158,229	$ 266,366	$ 279,017	$ 286,798	$ 279,274	$ 271,751	$ 264,317	$ 264,317
Total OE			$ 84,800	$ 127,832	$ 198,348	$ 294,577	$ 24,380,117	$ 26,056,704	$ 27,290,868	$ 28,583,311	$ 29,953,752	$ 31,385,792	$ 34,167,134
Total E(m) Gypsum to On-site Landfill as Calculated			$ 565,309	$ 5,226,561	$ 11,770,141	$ 19,774,813	$ 44,706,579	$ 46,601,539	$ 46,978,148	$ 47,453,670	$ 48,045,763	$ 48,655,040	$ 55,312,476
Total E(m) Gypsum to On-site Landfill per KU			$ 565,309	$ 5,226,225	$ 11,769,378	$ 19,773,528	$ 44,705,239	$ 46,600,208	$ 46,976,843	$ 47,458,553	$ 48,044,547	$ 48,653,648	
Calculation Check Difference			$ -	$ 336	$ 763	$ 1,285	$ 1,340	$ 1,331	$ 1,305	$ (4,883)	$ 1,216	$ 1,392	
Site E/F Hauling cost of Ash 2.25 mile round trip							$ 2,822,723	$ 2,992,086	$ 3,171,612	$ 3,361,908	$ 3,563,623	$ 3,777,440	$ 4,004,087
Haul Road Maintenance							$ 53,529	$ 56,741	$ 60,145	$ 63,754	$ 67,579	$ 71,634	$ 75,932
Total							$ 2,876,252	$ 3,048,827	$ 3,231,757	$ 3,425,662	$ 3,631,202	$ 3,849,074	$ 4,080,018
Reduce by 50% for Site M			$ -	$ -	$ -	$ -	$ 1,438,126	$ 1,524,414	$ 1,615,878	$ 1,712,831	$ 1,815,601	$ 1,924,537	$ 2,040,009
Difference **PVRR**	**7.81%**	**$ (21,865,903)**											

Revenue Requirments Summary
Gypsum Disposal at Sterling Materials

			2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
													Start Phase II
Revenue Requirement													$ 40,000,000
Eligible Plant			$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 323,969,979	$ 353,969,979	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
Less Gypsum Plant			$ (133,110,000)	$ (133,110,000)	$ (133,110,000)	$ (133,110,000)	$ (133,110,000)	$ (173,110,000)	$ (203,110,000)	$ (209,140,021)	$ (209,140,021)	$ (209,140,021)	$ (169,140,021)
Revised Eligible Plant			$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 190,859,979
Less Accumulated Depreciation			$ (33,038,006)	$ (37,246,999)	$ (41,455,992)	$ (45,664,985)	$ (49,873,978)	$ (54,082,972)	$ (58,291,965)	$ (62,500,958)	$ (66,709,951)	$ (70,918,944)	$ (76,243,937)
Less Deferred Tax Balance			$ (12,937,683)	$ (14,585,925)	$ (16,234,167)	$ (17,882,408)	$ (19,530,650)	$ (21,178,892)	$ (22,827,133)	$ (24,475,375)	$ (26,123,617)	$ (27,771,858)	$ (29,857,126)
Environmental Compliance Rate Base			$ 104,884,290	$ 99,027,055	$ 93,169,820	$ 87,312,585	$ 81,455,351	$ 75,598,116	$ 69,740,881	$ 63,883,646	$ 58,026,411	$ 52,169,177	$ 84,758,916
Rate of Return			10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
Assumed	Tons (1.155)	1,000,000	$ 11,505,807	$ 10,863,268	$ 10,220,729	$ 9,578,191	$ 8,935,652	$ 8,293,113	$ 7,650,575	$ 7,008,036	$ 6,365,497	$ 5,722,959	$ 9,298,053
86.7500%	Cubic yards	867,500											
Operating Expenses			$ 28,573,949	$ 30,288,386	$ 32,105,689	$ 34,032,031	$ 36,073,952	$ 38,238,390	$ 40,532,693	$ 42,964,655	$ 45,542,534	$ 48,275,086	$ 51,171,591
less Gypsum to On-site Landfill			$ (13,362,811)	$ (14,164,579)	$ (15,014,454)	$ (15,915,321)	$ (16,870,241)	$ (17,882,455)	$ (18,955,402)	$ (20,092,727)	$ (21,298,290)	$ (22,576,188)	$ (23,930,759)
Gypsum to Sterling	**$ 9.00**		$ 13,532,672	$ 14,344,633	$ 15,205,311	$ 16,117,629	$ 17,084,687	$ 18,109,768	$ 19,196,354	$ 20,348,136	$ 21,569,024	$ 22,863,165	$ 24,234,955
Net Operating			$ 28,743,811	$ 30,468,439	$ 32,296,546	$ 34,234,338	$ 36,288,399	$ 38,465,703	$ 40,773,645	$ 43,220,064	$ 45,813,267	$ 48,562,063	$ 51,475,787
Annual Depreciation			$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 5,324,993
Annual Property Tax Expense			$ 322,630	$ 367,985	$ 367,985	$ 367,985	$ 367,985	$ 367,985	$ 419,820	$ 458,696	$ 466,510	$ 466,510	$ 466,510
Total OE			$ 33,275,434	$ 35,045,418	$ 36,873,524	$ 38,811,317	$ 40,865,377	$ 43,042,681	$ 45,402,458	$ 47,887,752	$ 50,488,770	$ 53,237,566	$ 57,267,290
Total E(m) Gypsum to Sterling		$ 453,492,164	$ 44,781,241	$ 45,908,686	$ 47,094,253	$ 48,389,508	$ 49,801,029	$ 51,335,794	$ 53,053,032	$ 54,895,788	$ 56,854,267	$ 58,960,525	$ 66,565,343
Total E(m) - Project 30 (See below)		$ 555,782,375	$ 60,594,706	$ 61,145,021	$ 61,752,847	$ 62,469,712	$ 63,302,156	$ 69,590,749	$ 74,557,268	$ 76,324,534	$ 77,376,925	$ 78,576,175	$ 79,939,378
Difference	**PVRR**	**7.81% $ (102,290,212)**	$ (15,813,466)	$ (15,236,335)	$ (14,658,594)	$ (14,080,204)	$ (13,501,127)	$ (18,254,955)	$ (21,504,236)	$ (21,428,746)	$ (20,522,658)	$ (19,615,651)	$ (13,374,035)
Date			12/31/2020	12/31/2021	12/31/2022	12/31/2023	12/31/2024	12/31/2025	12/31/2026	12/31/2027	12/31/2028	12/31/2029	12/31/2030

Revenue Requirments Summary
2009 Amended Plan
Project 30 Ghent Landfill Phase I
See Exhibit B

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
						Start Phase III					
Revenue Requirement	$ 40,000,000					$ 40,000,000	$ 30,000,000	$ 6,030,021			
Eligible Plant	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 323,969,979	$ 353,969,979	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
Less Gypsum Plant	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Revised Eligible Plant	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 323,969,979	$ 353,969,979	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
Less Accumulated Depreciation	$ (48,317,917)	$ (56,240,679)	$ (64,163,440)	$ (72,086,202)	$ (80,008,964)	$ (89,047,726)	$ (98,923,488)	$ (108,967,487)	$ (119,011,486)	$ (129,055,485)	$ (139,099,485)
Less Deferred Tax Balance	$ (18,921,296)	$ (22,023,850)	$ (25,126,403)	$ (28,228,957)	$ (31,331,510)	$ (34,871,089)	$ (38,738,438)	$ (42,671,668)	$ (46,604,898)	$ (50,538,128)	$ (54,471,358)
Environmental Compliance Rate Base	$ 216,730,766	$ 205,705,451	$ 194,680,135	$ 183,654,820	$ 172,629,505	$ 200,051,164	$ 216,308,054	$ 208,360,845	$ 194,383,616	$ 180,406,387	$ 166,429,157
Rate of Return	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
	$ 23,775,365	$ 22,565,888	$ 21,356,411	$ 20,146,934	$ 18,937,457	$ 21,945,613	$ 23,728,993	$ 22,857,185	$ 21,323,883	$ 19,790,581	$ 18,257,279
Operating Expenses	$ 28,573,949.13	$ 30,288,386.07	$ 32,105,689.24	$ 34,032,030.59	$ 36,073,952.43	$ 38,238,389.57	$ 40,532,692.95	$ 42,964,654.53	$ 45,542,533.80	$ 48,275,085.83	$ 51,171,590.97
less Gypsum to On-site Landfill	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Gypsum to Sterling	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Net Operating	$ 28,573,949	$ 30,288,386	$ 32,105,689	$ 34,032,031	$ 36,073,952	$ 38,238,390	$ 40,532,693	$ 42,964,655	$ 45,542,534	$ 48,275,086	$ 51,171,591
Annual Depreciation	$ 7,922,762	$ 7,922,762	$ 7,922,762	$ 7,922,762	$ 7,922,762	$ 9,038,762	$ 9,875,762	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999
Annual Property Tax Expense	$ 322,630	$ 367,985	$ 367,985	$ 367,985	$ 367,985	$ 419,820	$ 458,696	$ 466,510	$ 466,510	$ 466,510	$ 466,510
Total OE	$ 36,819,341	$ 38,579,133	$ 40,396,436	$ 42,322,778	$ 44,364,700	$ 47,645,137	$ 50,828,274	$ 53,467,349	$ 56,053,043	$ 58,785,595	$ 61,682,100
Total E(m) Gypsum to On-site Landfill as Calculated	$ 60,594,706	$ 61,145,021	$ 61,752,847	$ 62,469,712	$ 63,302,156	$ 69,590,749	$ 74,557,268	$ 76,324,534	$ 77,376,925	$ 78,576,175	$ 79,939,378
Total E(m) Gypsum to On-site Landfill per KU											
Calculation Check Difference											
Site E/F Hauling cost of Ash 2.25 mile round trip	$ 4,244,332	$ 4,498,992	$ 4,768,931	$ 5,055,067	$ 5,358,371	$ 5,679,873	$ 6,020,666	$ 6,381,906	$ 6,764,820	$ 7,170,709	$ 7,600,952
Haul Road Maintenance	$ 80,488	$ 85,317	$ 90,436	$ 95,862	$ 101,614	$ 107,711	$ 114,174	$ 121,024	$ 128,285	$ 135,982	$ 144,141
Total	$ 4,324,820	$ 4,584,309	$ 4,859,367	$ 5,150,929	$ 5,459,985	$ 5,787,584	$ 6,134,839	$ 6,502,930	$ 6,893,105	$ 7,306,692	$ 7,745,093
Reduce by 50% for Site M	$ 2,162,410	$ 2,292,154	$ 2,429,684	$ 2,575,465	$ 2,729,993	$ 2,893,792	$ 3,067,420	$ 3,251,465	$ 3,446,553	$ 3,653,346	$ 3,872,547

Difference **PVRR** **7.81% $ (21,865,903)**

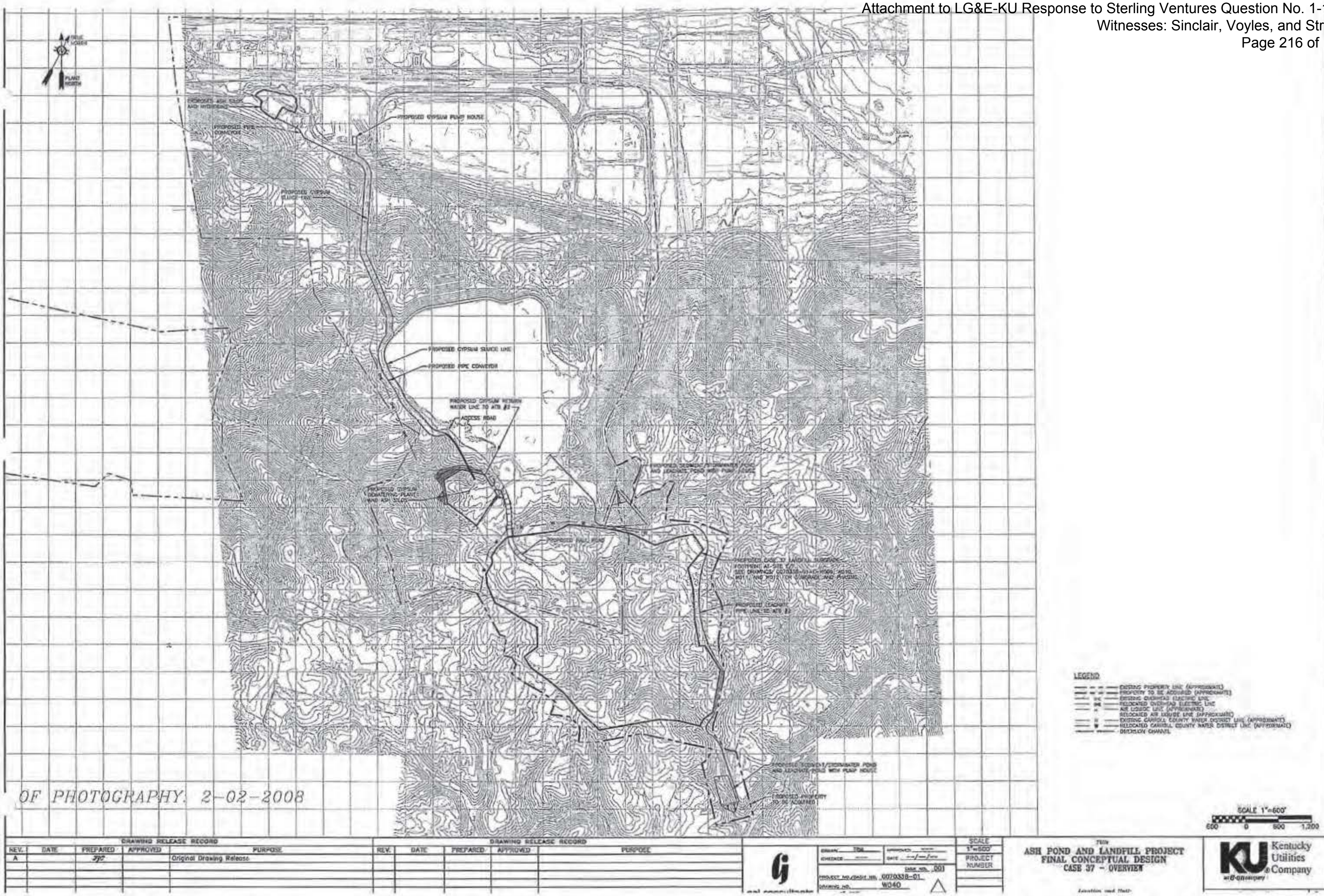
Revenue Requirments Summary
Gypsum Disposal at Sterling Materials

			2031	2032	2033	2034	2035	2036	2037	
Revenue Requirement			$ 40,000,000							
Eligible Plant			$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	
Less Gypsum Plant			$ (129,140,021)	$ (129,140,021)	$ (129,140,021)	$ (129,140,021)	$ (129,140,021)	$ (129,140,021)	$ (129,140,021)	
Revised Eligible Plant			$ 230,859,979	$ 230,859,979	$ 230,859,979	$ 230,859,979	$ 230,859,979	$ 230,859,979	$ 230,859,979	
Less Accumulated Depreciation			$ (82,684,930)	$ (89,125,923)	$ (95,566,916)	$ (102,007,909)	$ (108,448,902)	$ (114,889,895)	$ (121,330,888)	
Less Deferred Tax Balance			$ (32,379,419)	$ (34,901,711)	$ (37,424,004)	$ (39,946,297)	$ (42,468,590)	$ (44,990,883)	$ (47,513,176)	
Environmental Compliance Rate Base			$ 115,795,631	$ 106,832,345	$ 97,869,059	$ 88,905,773	$ 79,942,487	$ 70,979,202	$ 62,015,916	
Rate of Return			10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	
Assumed	Tons (1.155)	1,000,000	$ 12,702,781	$ 11,719,508	$ 10,736,236	$ 9,752,963	$ 8,769,691	$ 7,786,418	$ 6,803,146	
86.7500%	Cubic yards	867,500								
Operating Expenses			$ 54,241,886	$ 57,496,400	$ 60,946,184	$ 64,602,955	$ 68,479,132	$ 72,587,880	$ 76,943,153	
less Gypsum to On-site Landfill			$ (25,366,604)	$ (26,888,601)	$ (28,501,917)	$ (30,212,032)	$ (32,024,754)	$ (33,946,239)	$ (35,983,013)	
Gypsum to Sterling		**$ 9.00**	$ 25,689,052	$ 27,230,396	$ 28,864,219	$ 30,596,072	$ 32,431,837	$ 34,377,747	$ 36,440,412	
Net Operating			$ 54,564,334	$ 57,838,194	$ 61,308,486	$ 64,986,995	$ 68,886,215	$ 73,019,388	$ 77,400,551	
Annual Depreciation			$ 6,440,993	$ 6,440,993	$ 6,440,993	$ 6,440,993	$ 6,440,993	$ 6,440,993	$ 6,440,993	
Annual Property Tax Expense			$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	
Total OE			$ 61,471,837	$ 64,745,697	$ 68,215,989	$ 71,894,498	$ 75,793,718	$ 79,926,890	$ 84,308,054	
Total E(m) Gypsum to Sterling		$ 453,492,164	$ 74,174,618	$ 76,465,205	$ 78,952,224	$ 81,647,461	$ 84,563,408	$ 87,713,309	$ 91,111,200	$ 1,465,701,254
Total E(m) - Project 30 (See below)		$ 555,782,375	$ 81,476,372	$ 83,197,583	$ 85,114,065	$ 87,237,534	$ 89,580,409	$ 92,155,855	$ 94,977,826	$ 1,754,455,070
Difference	**PVRR**	**7.81% $ (102,290,212)**	$ (7,301,754)	$ (6,732,378)	$ (6,161,840)	$ (5,590,073)	$ (5,017,001)	$ (4,442,546)	$ (3,866,626)	$ (288,753,816)
Date			12/31/2031	12/31/2032	12/31/2033	12/31/2034	12/31/2035	12/31/2036	12/31/2037	
										$ (288,753,816)

Revenue Requirments Summary
2009 Amended Plan
Project 30 Ghent Landfill Phase I
See Exhibit B

			2031	2032	2033	2034	2035	2036	2037
Revenue Requirement									
Eligible Plant			$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
Less Gypsum Plant			$ -	$ -	$ -	$ -	$ -	$ -	$ -
Revised Eligible Plant			$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
Less Accumulated Depreciation			$ (149,143,484)	$ (159,187,483)	$ (169,231,482)	$ (179,275,482)	$ (189,319,481)	$ (199,363,480)	$ (209,407,479)
Less Deferred Tax Balance			$ (58,404,588)	$ (62,337,818)	$ (66,271,048)	$ (70,204,279)	$ (74,137,509)	$ (78,070,739)	$ (82,003,969)
Environmental Compliance Rate Base			$ 152,451,928	$ 138,474,699	$ 124,497,469	$ 110,520,240	$ 96,543,010	$ 82,565,781	$ 68,588,552
Rate of Return			10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
			$ 16,723,976	$ 15,190,674	$ 13,657,372	$ 12,124,070	$ 10,590,768	$ 9,057,466	$ 7,524,164
Operating Expenses			$ 54,241,886.43	$ 57,496,399.62	$ 60,946,183.60	$ 64,602,954.61	$ 68,479,131.89	$ 72,587,879.80	$ 76,943,152.59
less Gypsum to On-site Landfill			$ -	$ -	$ -	$ -	$ -	$ -	$ -
Gypsum to Sterling			$ -	$ -	$ -	$ -	$ -	$ -	$ -
Net Operating			$ 54,241,886	$ 57,496,400	$ 60,946,184	$ 64,602,955	$ 68,479,132	$ 72,587,880	$ 76,943,153
Annual Depreciation			$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999
Annual Property Tax Expense			$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510
Total OE			$ 64,752,395	$ 68,006,908	$ 71,456,692	$ 75,113,463	$ 78,989,641	$ 83,098,389	$ 87,453,661
Total E(m) Gypsum to On-site Landfill as Calculated			$ 81,476,372	$ 83,197,583	$ 85,114,065	$ 87,237,534	$ 89,580,409	$ 92,155,855	$ 94,977,826
Total E(m) Gypsum to On-site Landfill per KU									
Calculation Check Difference									
Site E/F	Hauling cost of Ash 2.25 mile round trip		$ 8,057,009	$ 8,540,429	$ 9,052,855	$ 9,596,026	$ 10,171,788	$ 10,782,095	$ 11,429,021
	Haul Road Maintenance		$ 152,790	$ 161,957	$ 171,675	$ 181,975	$ 192,894	$ 204,467	$ 216,735
Total			$ 8,209,799	$ 8,702,387	$ 9,224,530	$ 9,778,002	$ 10,364,682	$ 10,986,563	$ 11,645,756
Reduce by 50% for Site M			$ 4,104,899	$ 4,351,193	$ 4,612,265	$ 4,889,001	$ 5,182,341	$ 5,493,281	$ 5,822,878
Difference	**PVRR**	**7.81% $ (21,865,903)**							

EXHIBIT H


PROPOSED GYPSUM PUMP HOUSE
PROPOSED GYPSUM SLUICE LINE
PROPOSED PIPE CONVEYOR
ACCESS ROAD
PROPOSED HAUL ROAD
OF PHOTOGRAPHY: 2-02-2008
LEGEND
EXISTING PROPERTY LINE (APPROXIMATE)
PROPERTY TO BE ACQUIRED (APPROXIMATE)
EXISTING OVERHEAD ELECTRIC LINE
RELOCATED OVERHEAD ELECTRIC LINE
AIR LIQUIDE LINE (APPROXIMATE)
RELOCATED AIR LIQUIDE LINE (APPROXIMATE)
EXISTING CARROLL COUNTY WATER DISTRICT LINE (APPROXIMATE)
RELOCATED CARROLL COUNTY WATER DISTRICT LINE (APPROXIMATE)
DIVERSION CHANNEL
SCALE 1"=600'
600 0 600 1,200
DRAWING RELEASE RECORD
REV. DATE PREPARED APPROVED PURPOSE
A Original Drawing Release
SCALE 1"=600'
PROJECT NUMBER
PROJECT NO./DASH NO. 0070338-01
DRAWING NO. W040
CASE NO. 001
ASH POND AND LANDFILL PROJECT
FINAL CONCEPTUAL DESIGN
CASE 37 - OVERVIEW
Kentucky Utilities Company

From: Smith, Timothy(/O=LGE/OU=LOUISVILLE/CN=RECIPIENTS/CN=E008722)
To: Pfeiffer, Caryl; Joyce, Jeff; Tapp Sr., Kenny (Electric); Gilbert, Bill G.; Dotson, Mike; Puckett, Paul
CC:
BCC:
Subject: RE: Ghent Gyspum Disposal
Sent: 09/20/2011 03:02:44 PM -0400 (EDT)
Attachments:

Alex Boone, President of Sterling Materials showed up at the plant today and wanted permission to drive around our ash/gypsum facilities. The guard gate called me and I told him we would require a KU representative to be with him and that we didn't have anyone available right now. He said he would just come back another time.
I reviewed their proposal and found it to be full of inaccurate assumptions in how they calculated their $100M savings.
Also, their pricing for storage is also still too high. They want us to pay them $5.50/ton plus pay the $650k to develop a shaft at their mine plus us to be responsible for reclaiming, dewatering, loading and trucking of the material which could very easily take the total price well over the $10.50 ton that they suggest.
Thanks
Tim

From: Pfeiffer, Caryl
Sent: Monday, September 19, 2011 1:41 PM
To: Smith, Timothy; Joyce, Jeff; Tapp Sr., Kenny (Electric); Gilbert, Bill G.; Dotson, Mike; Puckett, Paul
Subject: RE: Ghent Gyspum Disposal
Are we going to get a meeting or conference call together to discuss this?

From: John Walters [mailto:johnwalters@sterlingventures.com]
Sent: Tuesday, September 13, 2011 5:15 PM
To: Smith, Timothy; Joyce, Jeff; Pfeiffer, Caryl; Tapp Sr., Kenny (Electric); Gilbert, Bill G.; Dotson, Mike; Puckett, Paul
Cc: Alex Boone
Subject: Ghent Gyspum Disposal
Please see attached
John W. Walters, Jr.
Sterling Ventures, LLC
376 South Broadway
Lexington, KY 40508
Phone (859) 259-9600
Cell 859-621-3990
Fax (859) 259-9601
johnwalters@sterlingventures.com

From: Pfeiffer, Caryl(/O=LGE/OU=LOUISVILLE/CN=RECIPIENTS/CN=E012383)
To: 'John Walters'
CC: Tapp Sr., Kenny (Electric)
BCC:
Subject: RE: Sterling Material Ghent Gypsum disposal
Sent: 10/27/2011 09:08:13 AM -0400 (EDT)
Attachments:

John
The assessment of disposal alternatives goes on in our Project Engineering area with support from the plants, Environmental Affairs, Legal, Fuels, etc. John Voyles, the VP of Transmission/Generation Services, has oversight of that area and can be reached at 502-627-4762. Scott Straight, the Director of Project Engineering, is responsible for coordinating that assessment and can be reached at 502-627-2701.
Caryl

From: John Walters [mailto:johnwalters@sterlingventures.com]
Sent: Wednesday, October 26, 2011 11:38 AM
To: Pfeiffer, Caryl
Subject: Sterling Material Ghent Gypsum disposal
Caryl:
I know you have been on vacation for a couple of weeks, and your desk is probably overflowing. However, I would like to find out about who I should be talking to about the proposal for gypsum disposal at Ghent that I sent by email on September 19th. I talked to Mike Dotson a couple of weeks ago, and he told me that disposal alternatives to the new proposed CCP landfill was not something your department handled. Has this been forwarded to another department? If so, who should I be contacting? Any help would be appreciated.
Thanks.
John
John W. Walters, Jr.
Sterling Ventures, LLC
376 South Broadway
Lexington, KY 40508
Phone (859) 259-9600
Cell (859) 621-3990
Fax (859) 259-9601
johnwalters@sterlingventures.com

From: Pfeiffer, Caryl(/O=LGE/OU=LOUISVILLE/CN=RECIPIENTS/CN=E012383)
To: Tapp Sr., Kenny (Electric)
CC:
BCC:
Subject: FW: Ghent Landfill Beneficial Reuse Opportunity
Sent: 12/13/2011 08:44:05 AM -0500 (EST)
Attachments:

From: Straight, Scott
Sent: Tuesday, December 13, 2011 8:32 AM
To: 'John Walters'
Cc: Pfeiffer, Caryl; Voyles, John; charles.schram@lge-ku.com; Joyce, Jeff; Heun, Jeff; Bowling, Ralph
Subject: RE: Ghent Landfill Beneficial Reuse Opportunity

Mr. Walters,

As we have discussed over the phone, this potential opportunity you have presented would not eliminate the need to construct the infrastructure required to process the by-products at Ghent, nor would it eliminate the construction of the landfill infrastructure. Instead, it potentially could have merit in a few years to defer the next phased expansion of the landfill.

The next phase of the landfill is years away; therefore, I'm transferring any future evaluation of this proposal to Mr. Jeff Joyce, Ghent's General Manager.

As the station General Manager, Mr. Joyce will take the lead on any consideration of changes to the future operation of that facility. If needed, Mr. Joyce will request involvement from my department or Caryl Pfeiffer's Corporate Fuels and By-Products department.

Sincerely,

Scott Straight
Director, Project Engineering
LG&E and KU Energy, LLC
(502) 627-2701
scott.straight@lge-ku.com

From: John Walters [mailto:johnwalters@sterlingventures.com]
Sent: Saturday, December 10, 2011 5:06 PM
To: Heun, Jeff
Cc: Straight, Scott; Pfeiffer, Caryl; Voyles, John; charles.schram@lge-ku.com; Joyce, Jeff
Subject: Ghent Landfill Beneficial Reuse Opportunity

Jeff

I understand from Scott Straight that you are evaluating the comparative PVRR cost projections for the beneficial reuse of Ghent's gypsum at Sterling Ventures' underground limestone mine. I am continuing to make minor adjustments to the comparative projections as we learn more information. Attached is the latest PVRR cost comparison.

In PSC Case No. 2009-00197, Charles Schram submitted, as part of his testimony, the PVRR analysis table that the Company would use to evaluate new beneficial reuse opportunities that could minimize disposal cost by delaying or eliminating construction of future phases. I have added three worksheets (KU PVRR Project 30, PVRR SV Option1 and PVRR SV Option2) to the attached excel file. Those worksheets (also attached as pdfs) convert my original PVRR comparison worksheet to the format that Mr. Schram indicated would be used in this situation. I apologize for not providing the beneficial reuse savings projections in this format earlier.

As I have indicated in prior emails, the comparative PVRR projections are based on certain assumptions about the timing of the remaining $160 million construction costs of Phases 2 and 3 of the landfill. I have based my capital cost timing assumptions, and the O&M costs, on the retirement studies analysis in KU's recent Environmental Surcharge case. We would welcome the opportunity to meet with you about refining, correcting and updating the construction timing and cost assumptions in the attached.

I am also attaching, for your review, the Form 7059 for that we filed in July 2010, and a copy of the resulting Beneficial Reuse Special Waste Permit for Ghent's gypsum the we received in November, 2010.

Hopefully, our existing Beneficial Reuse Permit can provide a timely alternative that can delay or eliminate near and long term landfill construction costs and equipment purchases at Ghent, and result in significant savings for KU and its' customers.

Could you possibly confirm receipt of this email, and also let me know when you believe your preliminary analysis will be completed?

I look forward to hearing from you.

John Walters

--

John W. Walters, Jr.

Sterling Ventures, LLC

376 South Broadway

Lexington, KY 40508

Phone (859) 259-9600

Fax (859) 259-9601

johnwalters@sterlingventures.com

From: Pfeiffer, Caryl(/O=LGE/OU=LOUISVILLE/CN=RECIPIENTS/CN=E012383)
To: Tapp Sr., Kenny (Electric)
CC:
BCC:
Subject: FW: Ghent Landfill Beneficial Reuse Opportunity
Sent: 12/12/2011 07:15:42 AM -0500 (EST)
Attachments: Ghent PVRR 12-7-11.xlsx; Ghent Project 30 PVRR Table SV Option2.pdf; Ghent Project 30 PVRR Table SV Option1.pdf; Ghent Project 30 PVRR Table.pdf; Sterling Ventures Permit 11-19-2010.pdf; Form 7056.pdf;

From: John Walters [mailto:johnwalters@sterlingventures.com]
Sent: Saturday, December 10, 2011 5:06 PM
To: Heun, Jeff
Cc: Straight, Scott; Pfeiffer, Caryl; Voyles, John; charles.schram@lge-ku.com; Joyce, Jeff
Subject: Ghent Landfill Beneficial Reuse Opportunity

Jeff

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I look forward to hearing from you.

John Walters

--

John W. Walters, Jr.

Sterling Ventures, LLC

376 South Broadway

Lexington, KY 40508

Phone (859) 259-9600

Fax (859) 259-9601

johnwalters@sterlingventures.com

DEP 7059F (1/06)

ENVIRONMENTAL AND PUBLIC PROTECTION CABINET

DEPARTMENT FOR ENVIRONMENTAL PROTECTION
DIVISION OF WASTE MANAGEMENT
14 REILLY ROAD
FRANKFORT, KY 40601
TELEPHONE NUMBER (502) 564-6716

REGISTERED PERMIT-BY-RULE
For BENEFICIAL REUSE OF SPECIAL WASTE
DEP 7059F (1/06)

GENERAL INSTRUCTIONS

1. APPLICABILITY - This registration form must be completed and submitted to the Cabinet by persons who propose to beneficially re-use special waste.

2. ASSISTANCE – Questions regarding this form may be directed in writing to the Division of Waste Management, Solid Waste Branch at the address listed above, or by calling (502) 564-6716.

3. SUBMISSION – Please type or print legibly in permanent ink. Submit the original and one (1) copy of the completed registration form to the Division of Waste Management at the address noted above. If an item is not applicable to your facility write "N/A" in the space provided.

4. LAWS AND REGULATIONS – Registrants are expected to understand and comply with all laws and regulations applicable to beneficial reuse of special waste.

DEP 7059F (1/06)

REGISTERED PERMIT-BY-RULE
BENEFICIAL REUSE OF SPECIAL WASTE

1. X New Registration - A registration number will be assigned by the Cabinet.
2. ___ This is a proposed modification of an existing registration.

Note: (If you checked item 2, complete one or both of the following two items.)
3. Agency Interest #: _____ 4. Registration #: ___-_____

Registrant Information

(The corporation, LLC, business, person, government agency, etc., that owns or operates the facility.)

5. Registrant Name: Sterling Ventures, LLC d/b/a Sterling Materials

6. Registrant Mailing Address: 376 South Broadway

7. City: Lexington 8. State: KY 9. Zip Code: 40508

10. Contact Person: Samuel A.B. Boone 11. Title: President

12. Phone #: (859) 259-9600 13. Cell #: (859) 621-4121

14. Fax #: (859) 259-9601 15. E-Mail Address: aboone@sterlingventures.com

Special Waste Facility Information

16. Facility Name: Sterling Mine 17. County: Gallatin

18. Facility Location: 100 Sierra Drive 19. E-Mail Address: _____
(For street or physical location only. Do not use P. O. Box #'s, etc.)

20. City: Verona 21. Zip Code: 41092

22. Facility Contact Person: Sam Van 23. Title: Mine Superintendent

24. Phone #: (859) 567-7300 Fax #: (859) 567-7313 Cell #: (859) 621-2142

Preparer Information

(Complete items 27 – 36 If the following information concerning the person preparing this registration is different from the contact persons named above.)

27. Preparers Name: John Walters 28. Company: Sterling Ventures, LLC

29. Mailing Address: 376 S. Broadway 30. E-mail Address: johnwalters@sterlingventures.com

31. City: Lexington 32. State: KY 33. Zip Code: 40508

34. Phone #: (859) 259-9600 35. Fax #: (859) 259-9601 36. Cell #: (859) 621-3990

DEP 7059F (1/06)

37. List the source (special waste generating facility) of the special waste to be beneficially reused. If there are multiple sources and more space is needed, use additional sheets and label as **Attachment 1.**

Special waste generator: KU Ghent Generation Station, Ghent, Carroll County, Kentucky

Special waste generator: _____

Special waste generator: _____

Special waste generator: _____

38. Provide, as **Attachment 2,** a description of the type and anticipated volume of special waste to be beneficially reused.

39. Provide as **Attachment 3,** a copy of the Toxicity Characteristic Leaching Procedure (TCLP) laboratory analysis for each type of special waste to be beneficially reused.

Note: You may omit the TCLP analysis or specific parameters of the analysis based upon your knowledge of the Special Waste, pursuant to 40 CFR 262.11. Should you elect to do this, a certified statement accepting responsibility will be required. Polychlorinated Biphenyls (PCBs) may also be omitted from the parameters listed in 401 KAR 45:100 Section 6(20)(b). Any certified statement for the omission of the TCLP or PCB data should be labeled as **Attachment 4.**

40. Provide, as **Attachment 5,** a description of how the special waste will be managed.

41. Provide, as **Attachment 6,** a description of how management and reuse of the special waste meets the environmental performance standards of 401 KAR 30:031.

42. **Attachment 7** is to be used to maintain a record of the special waste sources and amounts received. This form shall be utilized for quarterly reports submitted to the Cabinet.

DEP 7059F (1/06)

43. Certification pursuant to 401 KAR 45:030 Section 10(4):

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for such violations."

Signature of Registrant _____ Date _____

Name of Registrant (Typed or Printed) _____

Title _____

Subscribed and sworn to before me by _____

this the _____ day of _____, 20 _____.

Notary Public Signature _____

My Commission Expires _____

Attachment 2
Type and Volume of Special Waste

Sterling Ventures is proposing to use up to 800,000 tons per year of FGD Gypsum produced from the KU Ghent Power Station in Ghent Kentucky to fill mine voids in mined out sections of Sterling's underground limestone mine located at 100 Sierra Drive, Verona, Gallatin County, Kentucky. Gypsum is calcium sulfate dihydrate, or $CaSO4 \cdot 2H2O$, which comes primarily from two sources: (i) Mined gypsum, a common mineral found around the world in sedimentary rock formations, from which it is mined or quarried, and (ii) FGD gypsum, which is produced as a byproduct from coal-fired electric utilities and is a synthetic material essentially identical in chemical structure to mined gypsum. The underground mine has the capacity to use 1,000,000 tons per year of gypsum for as long as the mine is operating at current limestone sales volumes.

FGD Gypsum

Scrubbers are attached to coal-fired power plants to limit emissions of the sulfur which is released when coal is burned. The scrubbers spray liquid lime or limestone slurry into the flue gas path, where it reacts with sulfur in the gas to form calcium sulfite, an intermediate product with little practical value. Calcium sulfite is commonly known as "scrubber sludge."

However, newer FGD scrubbing technologies can add an extra step to the scrubbing process known as "forced oxidation" which oxidizes the calcium sulfite and produces calcium sulfate dihydrate ($CaSO4 \cdot 2H2O$), or FGD gypsum. The FGD gypsum is easily dewatered and can be marketable in the wallboard and agricultural industries.

The Ghent power plant has installed forced oxidation scrubbers on all four of its generating units with a projected FGD gypsum production of approximately 800,000 tons per year. The Ghent plant has a contract to provide the FGD Gypsum to the CertainTeed, Inc. wallboard plant located in East Carrolton, Kentucky. KU has projected CertainTeed's usage to be approximately 222,000 ton per year. Excess FGD Gypsum at Ghent is placed on the plant's Gypsum Stacking Pond. The Stacking Pond is currently listed as one of the 49 High Hazard impoundment facilities in the United States listed by the EPA in its *Coal Combustion Residues (CCR) - Surface Impoundments with High Hazard Potential Ratings* report. (See EPA530-F-09-006 June 2009 (updated August 2009)).

Because CertainTeed cannot utilize all of Ghent's FGD Gypsum, the opportunity to beneficially reuse this excess of FGD gypsum for filling Sterling's underground mine voids is an attractive alternative. In addition to providing a benefit to Sterling in filling underground voids to promote improved airflow in the mine, placing the Ghent's excess gypsum at Sterling is important to substantially reducing or eliminating the volume of excess gypsum in the gypsum stacking pond.

Attachment 3
Toxicity Characteristic Leaching Procedure Laboratory Analysis

See attached Exhibit 3-A

Exhibit 3A

Microbac®
Microbac Laboratories, Inc.
KENTUCKY TESTING LABORATORY DIVISION
3323 Gilmore Industrial Blvd. Louisville, KY 40213 502.962.6400 Fax: 502.962.6411
Evansville, IN 812.464.9000 | Lexington, KY 859.276.3506 | Paducah, KY 270.898.1637
Member ACIL

Chemical, Biological, Physical, Molecular, and Toxicological Services

ELECTRONIC CERTIFICATE OF ANALYSIS

1006-00672

I.G & E (E ON US)
PAUL PUCKETT
EON-US / ANNUAL CCR EVALUATION

Date Reported 05/19/2010
Date Received 05/11/2010
Dates Sampled 05/04/2010-05/06/2010

Analysis	Out of Spec	Qualif	Result	Unit	Min	Max	Method	Cus Limit	PQL or Std Limit	Date	Time	Tech
Sample: 014 GHENT - UNIT 1 FLY ASH							Date & Time Sampled:			05/06/2010	@ 12:00	
....continued												
Sample: 015 GHENT - UNIT 2 FLY ASH							Date & Time Sampled:			05/06/2010	@ 12:00	
DATE EXTRACTED TCLP			COMPLETED	---			SW846 1311			05/13/10	16:00	RFV
[TCLP Metals]							SW846 6010C					
ARSENIC, TCLP			<0.20	MG/L		5.0	SW846 6010C		0.2	05/18/10	2:11	EML
BARIUM, TCLP			0.48	MG/L		100.0	SW846 6010C		0.002	05/18/10	2:11	EML
CADMIUM, TCLP			<0.10	MG/L		1.0	SW846 6010C		0.004	05/19/10	13:39	EML
CHROMIUM, TCLP			<0.10	MG/L		5.0	SW846 6010C		0.01	05/19/10	13:39	EML
LEAD, TCLP			<0.10	MG/L		5.0	SW846 6010C		0.02	05/19/10	13:39	EML
MERCURY, TCLP			<0.10	MG/L		0.2	SW846 6010C		0.004	05/19/10	13:39	EML
SELENIUM, TCLP			<0.20	MG/L		1.0	SW846 6010C		0.1	05/18/10	2:11	EML
SILVER, TCLP			<0.10	MG/L		5.0	SW846 6010C		0.01	05/19/10	13:39	EML
Sample: 016 GHENT - GYPSUM STACK							Date & Time Sampled:			05/06/2010	@ 12:00	
DATE EXTRACTED TCLP			COMPLETED	---			SW846 1311			05/13/10	16:00	RFV
[TCLP Metals]							SW846 6010C					
ARSENIC, TCLP			<0.20	MG/L		5.0	SW846 6010C		0.2	05/18/10	2:16	EML
BARIUM, TCLP			<0.10	MG/L		100.0	SW846 6010C		0.002	05/18/10	2:16	EML
CADMIUM, TCLP			<0.10	MG/L		1.0	SW846 6010C		0.004	05/19/10	13:43	EML
CHROMIUM, TCLP			<0.10	MG/L		5.0	SW846 6010C		0.01	05/19/10	13:43	EML
LEAD, TCLP			<0.10	MG/L		5.0	SW846 6010C		0.02	05/19/10	13:43	EML
MERCURY, TCLP			<0.10	MG/L		0.2	SW846 6010C		0.004	05/19/10	13:43	EML
SELENIUM, TCLP			<0.20	MG/L		1.0	SW846 6010C		0.1	05/18/10	2:16	EML
SILVER, TCLP			<0.10	MG/L		5.0	SW846 6010C		0.01	05/19/10	13:43	EML
Sample: 017 GHENT - GYPSUM							Date & Time Sampled:			05/06/2010	@ 12:00	
DATE EXTRACTED TCLP			COMPLETED	---			SW846 1311			05/13/10	16:00	RFV
[TCLP Metals]							SW846 6010C					
ARSENIC, TCLP			<0.20	MG/L		5.0	SW846 6010C		0.2	05/18/10	2:19	EML
BARIUM, TCLP			<0.10	MG/L		100.0	SW846 6010C		0.002	05/18/10	2:19	EML
CADMIUM, TCLP			<0.10	MG/L		1.0	SW846 6010C		0.004	05/19/10	13:46	EML
CHROMIUM, TCLP			<0.10	MG/L		5.0	SW846 6010C		0.01	05/19/10	13:46	EML
LEAD, TCLP			<0.10	MG/L		5.0	SW846 6010C		0.02	05/19/10	13:46	EML
MERCURY, TCLP			<0.10	MG/L		0.2	SW846 6010C		0.004	05/19/10	13:46	EML

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Microbac Laboratories, Inc.

KENTUCKY TESTING LABORATORY DIVISION
3333 Gilmore Industrial Blvd. Louisville, KY 40213 502.962.6400 Fax: 502.962.6411
Evansville, IN 812.464.9000 | Lexington, KY 859.276.3506 | Paducah, KY 270.898.3637

Member ACIL

Chemical, Biological, Physical, Molecular, and Toxicological Services

ELECTRONIC CERTIFICATE OF ANALYSIS

1005-00672

LG & E (E ON US)
PAUL PUCKETT
EON-US / ANNUAL CCP EVALUATION

Date Reported 05/19/2010
Date Received 05/11/2010
Dates Sampled 05/04/2010-05/06/2010

Analysis	Out of Spec	Qualif	Result	Unit	Min	Max	Method	Qua Limit	PQL or Std Volt	Date	Time	Tech
Sample: 017 GHENT - GYPSUM								Date & Time Sampled:		05/06/2010	@ 12:00	
.....continued												
SELENIUM, TCLP			<0.10	MG/L		1.0	SW846 6010C		0.1	05/18/10	2:29	PHL
SILVER, TCLP			<0.10	MG/L		5.0	SW846 6010C		0.01	05/18/10	13:45	PHL

THIS REPORT HAS BEEN REVIEWED AND APPROVED FOR RELEASE: _____

LABORATORY DIRECTOR, KENTUCKY DIVISION

As regulatory limits change frequently, Microbac advises the recipient of this report to confirm such limits with the appropriate Federal, state, or local authorities before acting in reliance on the regulatory limits provided.
For any feedback concerning our services, please contact Andrew Clifton, the Laboratory Director at 502.962.6400. You may also contact both James Nokes, President and Robert Morgan, Chief Operating Officer at president@microbac.com.

Attachment 5
Management of Special Waste

Gypsum will be excavated from the Ghent's Gypsum Stacking Pond by excavator and loaded in tarped, tri-axel dump trucks for transportation to Sterling's mine. Sterling Venture's Verona mine produces limestone from underground operations only. It does not mine any limestone from open pits. Sterling mines from three underground levels, located in solid limestone bedrock. From a geological standpoint, the sea level elevation of the roof of the uppermost level is approximately 136 feet above sea level. The roofs of the second and third levels are approximately 28 feet above, and 149 feet below sea level, respectively. From a reference point, the lowest most level of the Ohio River adjacent to the Sterling Mine is approximately 401 feet above sea level. (see Exhibit 6C)

Once at the mine, the gypsum will be dumped directly from the dump trucks, via shaft, to the first level (the "Tyrone" seam) of the underground mine. Once underground, the gypsum will be carried by loader or conveyor to the mined out areas then stacked, pushed and compacted to fill the mine voids.

Attachment 6

Management and Reuse in compliance with 401 KAR 30:031

The following is a summary of the how the management and reuse meets each of the Sections of 401 KAR 30:031.

Section 2. Floodplains.
All gypsum will be placed in Sterling's underground mine. Gypsum will not be placed or stored above ground and therefore will have no impact on, or restrict the flow of, the 100 year floodplain.

Section 3. Endangered Species.
All gypsum will be placed in Sterling's underground mine. Gypsum will not be placed or stored above ground and therefore will have no impact on, or result in the destruction of the habitat of any threatened or endangered species.

Section 4. Surface Waters.
All gypsum will be placed in Sterling's underground mine. Gypsum will not be placed or stored above ground and therefore will have no impact on, or cause a discharge into, any waters of the Commonwealth.

Section 5. Groundwater.
All gypsum will be placed in solid bedrock in an area below the bottom level of the uppermost aquifer. Gypsum will not be placed or stored above ground and therefore will have no impact on, or cause a discharge into, any waters of the Commonwealth.

The uppermost mining level of Sterling's underground mine is located in what is known as the Tyrone seam of limestone. The Tyrone Limestone in north central Kentucky contains at least five potassium bentonites. Bentonite is a soft, low-specific-gravity, expandable clay. It is altered volcanic ash and because of its peculiar property of expanding when wet, bentonite is effective as a water sealer, especially to prevent pond leakage, and is also used in rotary drilling muds to prevent contaminating formations with drilling fluid. Drillers have labeled the two most prominent Tyrone bentonite beds the Mud Cave and Pencil Cave. The bentonite acts as an acqutiard or confining layer that will prevent any contact of the gypsum with groundwater.

Attached as Exhibit 6-A is an excerpt from the U.S. Geological Survey - Hydrologic Atlas 730-K, Orville B. Lloyd, Jr., and William L. Lyke, 1995, describing the impact of the bentonite as a barrier to groundwater contact.

The roof of the uppermost mining level is over 200 feet below the bottom of any recorded well in the area. Regional wells do not extend below the bentonite levels in the Tyrone limestone. Attached as Exhibit 6-B is a listing of all recorded water wells in the area, their depth and distance between the bottom of the well and the roof of the Tyrone mining level.

Attached as Exhibit 6-C is a cross section of the Sterling's underground mine showing the Tyrone level mine in relation to the Mud Cave and Pencil Cave bentonite seams.

Section 6. Application to Land Use.
All gypsum will be placed underground. Gypsum will not be placed or stored above ground and therefore will have no impact on land use.

Section 7. Polychlorinated Biphenals.
FGD Gypsum does not contain PCBs.

Section 8. Disease.
All gypsum will be placed underground and therefore will be automatically covered. Gypsum is an inert naturally occurring mineral. Underground placement will eliminate any human health or environmental issues. No sewage sludge or septic tank materials are pumped or stored underground at Sterling's underground mine.

Section 9. Air.
Underground storage will not involve burning of gypsum, which is not a flammable material. Underground storage approximately 400 feet below the surface will prohibit the airborne release of gypsum.

Section 10. Safety.
Neither limestone mining nor gypsum produces any explosive gases or a fire hazard. Sterling's underground mine is gated, which prohibits any type of uncontrolled public access.

Section 11. Public Nuisance.
Underground storage will eliminate any public nuisance due to blowing litter, debris or other waste.

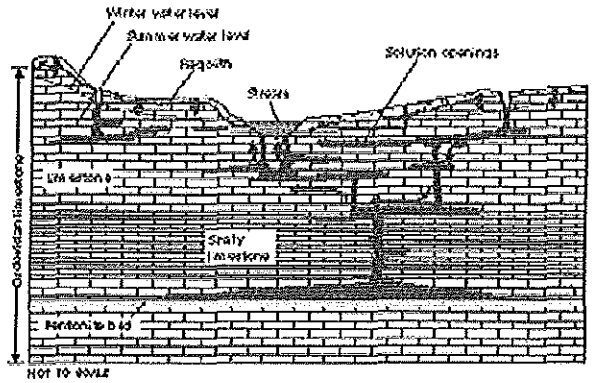
Section 12. Wetlands.
All gypsum will be placed underground. Gypsum will not be placed or stored above ground and therefore will have no impact on any wetlands

Section 13. Karst.
There are no sinkholes on or near the approximately 1,000 acres owned by Sterling. No surface water enters or exits the mine through any karst terrain or feature.

Section 14. Compliance.
Sterling will comply with all applicable requirements of KRS Chapter 224 and administrative regulation promulgated thereto.

Exhibit 6A

Confining units, such as beds of shaly limestone and bentonite, affect the depth to which freshwater circulates (fig. 97). Thin bentonite zones, which consist of clay particles that expand or swell when they become wet, form layers of low permeability that effectively impede the vertical movement of ground water. For example, in areas where the bentonite layers are continuous, the downward movement of ground water is restricted. This restriction isolates the ground water below the bentonite from the zone of dynamic circulation above the bentonite. U.S. Geological Survey - Hydrologic Atlas 730-K, Orville B. Lloyd, Jr., and William L. Lyke, 1995



Modified from Zurawski, Ann, 1978, Summary appraisals of the Nation's ground-water resources—Tennessee region: U.S. Geological Survey Professional Paper 813-L, 35 p.

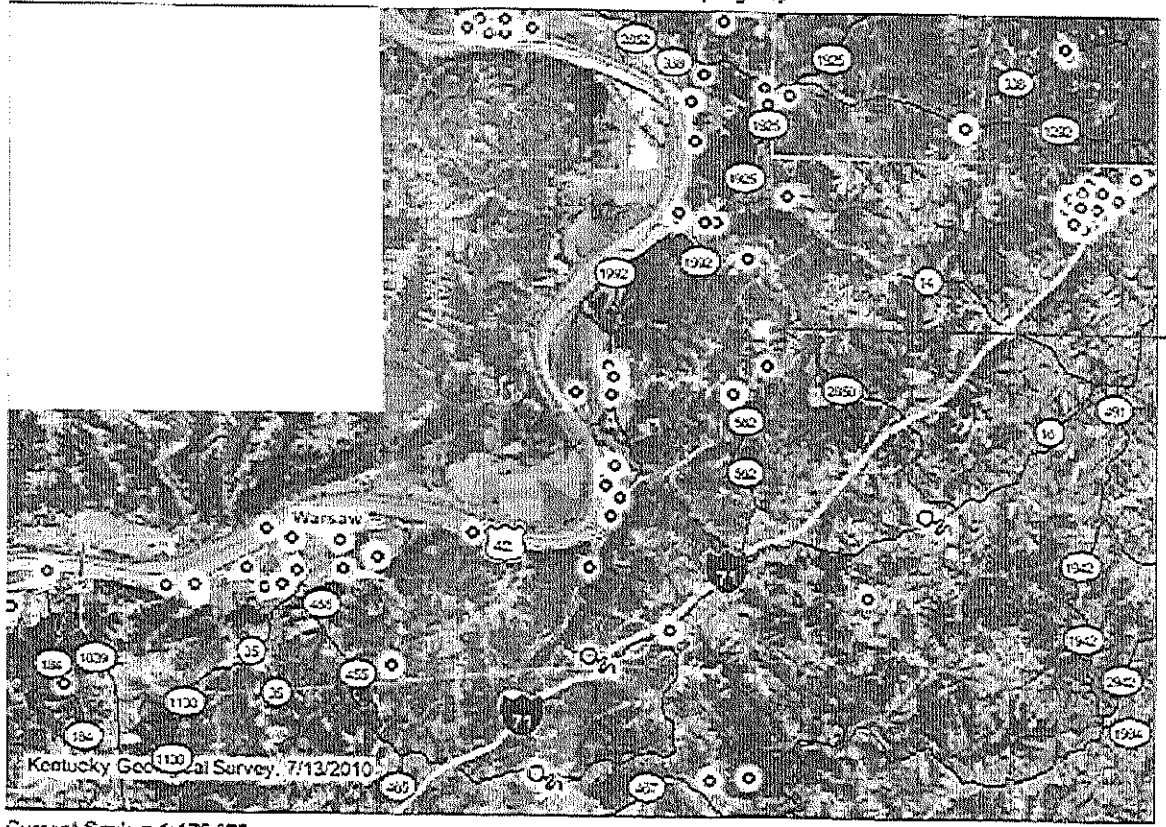
Figure 97. The limestone and dolomite aquifers contain small quantities of insoluble material and, therefore, produce only a thin layer of residuum when weathered. Recharge water percolates through the thin layer of surface material, called regolith, and subsequently moves through vertical fractures and horizontal bedding planes in the rocks. The slightly acidic water dissolves some of the limestone and dolomite as it moves to streams and other areas of discharge, such as springs and wells. The vertical movement of the recharge water and, therefore, the depth of development of solution openings, are restricted by zones of low permeability.

Kentucky Groundwater Data Repository
Kentucky Geological Survey
Water Well and Spring Location Map

Note: please disable popup blocking software for full functionality.

KGS Home > Maps, Pubs, & Data > Groundwater Info > Water Well and Spring Map

Search Criteria:
no search criteria



Sterling Mine

Current Scale = 1:175,972
Note: all wells and springs are displayed at scales below 1:100,000

Change Map Scale: choose a map scale

Change Basemap (background): color imagery (lfsa)

Change Map Size: half pg (6.8 x 4.7 in) | full pg (6.8 x 9.4 in)
TIP: to print map to scale, be sure to "File --> Print Preview..." and print at 100% scaling.

Overview Map:

Map Tools:

zoom in	zoom out	zoom full
zoom last	pan	get coords

Move Map:

Other Tools:

zoom to a location

KY-MAPS

Bookmark Map

EXHIBIT 6B

AKGWA NUMBER	lat27	lon27	Quadrangle	County	Construction Date	Primary Use	Surface Elevation	Total Depth	Bottom Elevation	Delta to Mine Roof	Owner	Owner Business	Regulatory Program
210	38.77528	-84.8131	Patriot	Gallatin	3/12/1987	DOMESTIC - SINGLE HOUSEHOLD	480	96	384	248	Wessells Constru		
950	38.81611	-84.8061	Patriot	Gallatin	6/22/1987	DOMESTIC - SINGLE HOUSEHOLD	510	99	411	275	Donlin		
2070	38.7525	-84.8722	Patriot	Gallatin	1/1/1900	DOMESTIC - SINGLE HOUSEHOLD	570				Hayton		
2070	38.7525	-84.8722	Patriot	Gallatin	1/1/1900	DOMESTIC - SINGLE HOUSEHOLD	570				Hayton		
2070	38.7525	-84.8722	Patriot	Gallatin	2/28/1986	DOMESTIC - SINGLE HOUSEHOLD	570	90	480	344	Hayton		
2070	38.7525	-84.8722	Patriot	Gallatin	2/28/1986	DOMESTIC - SINGLE HOUSEHOLD	570	90	480	344	Hayton		
2071	38.7975	-84.8078	Patriot	Gallatin	4/7/1986	DOMESTIC - SINGLE HOUSEHOLD	470	78	392	256	Wilker / McIntos		
2072	38.79167	-84.8039	Patriot	Gallatin	4/22/1986	DOMESTIC - SINGLE HOUSEHOLD	460	57	403	267	Perry		
3030	38.82306	-84.7594	Patriot	Gallatin	8/13/1985	DOMESTIC - SINGLE HOUSEHOLD	600	100	500	364	Whalen		
3885	38.82278	-84.8069	Patriot	Gallatin	7/30/1987	DOMESTIC - SINGLE HOUSEHOLD	524	142	382	246	Sproul		
6426	38.79722	-84.8072	Patriot	Gallatin	3/28/1988	DOMESTIC - SINGLE HOUSEHOLD	475	50	425	289	Hudepohl		
6427	38.775	-84.9003	Florence	Gallatin	8/31/1988	INDUSTRIAL - GENERAL	485	92	393	257		Irving Materials Inc	
6429	38.7875	-84.8064	Patriot	Gallatin	5/16/1989	DOMESTIC - SINGLE HOUSEHOLD	475	65	410	274	Heil		
7861	38.87556	-84.7808	Rising Sun	Boone	10/8/1990	DOMESTIC - SINGLE HOUSEHOLD	495	70	425	289	Ralston		
8554	38.79639	-84.8078	Patriot	Gallatin	10/29/1987	DOMESTIC - SINGLE HOUSEHOLD	470	93	377	241	Schwab		
10409	38.75417	-84.9117	Florence	Gallatin	1/22/1993	DOMESTIC - SINGLE HOUSEHOLD	550	83	467	331	Fender		
14147	38.88472	-84.7817	Rising Sun	Boone	12/13/1988	DOMESTIC - SINGLE HOUSEHOLD	530	86	444	308	Wood		
14148	38.88472	-84.7817	Rising Sun	Boone	12/14/1988	DOMESTIC - SINGLE HOUSEHOLD	430	93	337	201	Wood		
20278	38.78389	-84.8475	Patriot	Gallatin	8/18/1986	DOMESTIC - SINGLE HOUSEHOLD	470	80	390	254	Boschert		
20583	38.88778	-84.7597	Rising Sun	Boone	1/1/1900		550				Waljih		
21565	38.76806	-84.7294	Verona	Grant	10/3/1986	DOMESTIC - SINGLE HOUSEHOLD	710	80	630	494	Ellis		
21577	38.88389	-84.7586	Rising Sun	Boone	6/5/1994	DOMESTIC - SINGLE HOUSEHOLD	520	80	440	304	Wilbur		
27010	38.8575	-84.7864	Patriot	Boone	6/8/1992	DOMESTIC - SINGLE HOUSEHOLD	477	56	421	285	Fred		
29603	38.77078	-84.9396	Florence	Gallatin	1/1/1900	PUBLIC - TRANSIENT, NON-COMMUNITY	460				Loewendick	Rivers Edge Campground	
34428	38.87778	-84.6744	Union	Boone	7/20/1993		810	63	747	611	Vaske		
34436	38.84806	-84.765	Patriot	Boone	1/20/1987	DOMESTIC - SINGLE HOUSEHOLD	495	64	431	295	Gilliland		
34438	38.90361	-84.7714	Rising Sun	Boone	12/10/1986	DOMESTIC - SINGLE HOUSEHOLD	600	100	500	364	Kurkel		
34474	38.89556	-84.6681	Union	Boone	4/23/1993		810	83	727	591	Allen		
34475	38.89694	-84.6694	Union	Boone	12/4/1992	DOMESTIC - SINGLE HOUSEHOLD	820	103	717	581	McDaniel		
37305	38.78611	-84.8903	Florence	Gallatin	10/1/1994	HEAT PUMP - OPEN LOOP	495	94	401	265		Gallatin County Schools	
37311	38.76583	-84.9856	Florence	Gallatin	1/19/1995	INDUSTRIAL - GENERAL	470	91	379	243		Steel Technologies Inc	
37376	38.78222	-84.9017	Florence	Gallatin	1/1/1930	PUBLIC - COMMUNITY	491	136	355	219		Warsaw Water Works	Drinking Water
37377	38.78262	-84.9017	Florence	Gallatin	1/1/1930	PUBLIC - COMMUNITY	491	96	395	259		Warsaw Water Works	Drinking Water
37378	38.77417	-84.8856	Florence	Gallatin	1/1/1967	AGRICULTURE - LIVESTOCK WATERING	505	78	427	291	Smith		
37400	38.77861	-84.8778	Florence	Gallatin	4/27/1995		500				Oldendick	Sugar Bay Golf Inc	
39222	38.77889	-84.8764	Florence	Gallatin	1/1/1965		503				Oldendick	Sugar Bay Golf Inc	
48660	38.77528	-84.8867	Florence	Gallatin	1/1/1900	DOMESTIC - SINGLE HOUSEHOLD	510				Beall		
49372	38.78583	-84.8931	Florence	Gallatin	11/1/1999	HEAT PUMP - OPEN LOOP	495					Gallatin County Schools	
49377	38.77063	-84.9102	Florence	Gallatin	2/28/2000	PUBLIC - COMMUNITY	500					Gallatin County Water District	Drinking Water
51920	38.89969	-84.7986	Rising Sun	Boone	1/1/1974	PUBLIC - TRANSIENT, NON-COMMUNITY	470	9	461	325		Camp Turn About	
55811	38.85639	-84.7742	Patriot	Boone	4/19/2002	DOMESTIC - SINGLE HOUSEHOLD	490	70	420	284		Big Bone Marina	
58332	38.85639	-84.7775	Patriot	Boone	5/1/2002	DOMESTIC - SINGLE HOUSEHOLD	460	63	397	261		Big Bone Marina	
58338	38.89111	-84.7776	Rising Sun	Boone	1/23/2002	DOMESTIC - SINGLE HOUSEHOLD	605	80	525	389	Parker		
65141	38.82028	-84.8053	Patriot	Gallatin	1/1/1900	INDUSTRIAL - GENERAL	523					Nugent Sand Co - Warsaw Plant	
40004237	38.72534	-84.7774	Glencoe	Grant		DOMESTIC - SINGLE HOUSEHOLD							
40004241	38.78173	-84.8874	Florence	Gallatin		UNKNOWN	475						
40004243	38.79923	-84.8049	Patriot IN	Gallatin		DOMESTIC - SINGLE HOUSEHOLD		140					
40004245	38.81673	-84.8169	Patriot IN	Gallatin		DOMESTIC - SINGLE HOUSEHOLD		101					
40005375	38.77145	-84.9049	Florence	Gallatin		UNKNOWN	515						
40005376	38.77423	-84.9747	Florence	Gallatin		UNKNOWN	455						
40005378	38.78257	-84.9019	Florence	Gallatin		PUBLIC	490	140	350	214			
40005886	38.72618	-84.7655	Glencoe	Grant		UNKNOWN							

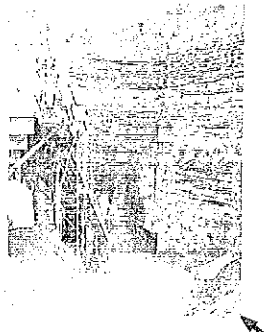
AKGWA NUMBER	lat27	lon27	Quadrangle	County	Construction Date	Primary Use	Surface Elevation	Total Depth	Bottom Elevation	Delta to Mine Roof	Owner	Owner Business	Regulatory Program
40005892	38.76951	-84.9305	Florence	Gallatin		DOMESTIC - SINGLE HOUSEHOLD		55					
40005893	38.76951	-84.9305	Florence	Gallatin		UNKNOWN	460						
40005894	38.77395	-84.9747	Florence	Gallatin		DOMESTIC - SINGLE HOUSEHOLD		58					
40005895	38.85867	-84.7858	Patriot IN	Boone		DOMESTIC - SINGLE HOUSEHOLD	490	29	461	325			
40006041	38.78173	-84.8874	Florence	Gallatin		DOMESTIC - SINGLE HOUSEHOLD		40					
40006325	38.77812	-84.8761	Florence	Gallatin		UNKNOWN	510		510	374			
40006326	38.78173	-84.8874	Florence	Gallatin		UNKNOWN	475		475	339			
40006327	38.79479	-84.8077	Patriot IN	Gallatin		DOMESTIC - SINGLE HOUSEHOLD		60					
40006328	38.79923	-84.8049	Patriot	Gallatin		UNKNOWN	490						
40006757	38.72534	-84.7774	Glencoe	Grant		UNKNOWN							
40006762	38.77145	-84.9049	Florence	Gallatin		DOMESTIC - SINGLE HOUSEHOLD		146					
40006763	38.77423	-84.9747	Florence	Gallatin		DOMESTIC - SINGLE HOUSEHOLD		87					
40006764	38.86256	-84.7527	Patriot IN	Boone		PUBLIC							
40007580	38.72618	-84.7655	Glencoe	Grant		DOMESTIC - SINGLE HOUSEHOLD							
40007585	38.74757	-84.9699	Sanders	Gallatin		DOMESTIC - SINGLE HOUSEHOLD							
40007586	38.77395	-84.9747	Florence	Gallatin		UNKNOWN	453						
40007588	38.77812	-84.8761	Florence	Gallatin		DOMESTIC - SINGLE HOUSEHOLD		80					
80003234	38.8625	-84.6614	Verona	Boone	7/22/1993	ITORING WELL - WATER LEVEL MONITORING	800	18	782	646		Bavarian Trucking Co Inc	Solid Waste
80003235	38.86139	-84.6572	Verona	Boone	7/14/1993	ITORING WELL - WATER LEVEL MONITORING	800	20.7	779.3	643.3		Bavarian Trucking Co Inc	Solid Waste
80003236	38.86083	-84.6592	Verona	Boone	7/10/1993	ITORING WELL - WATER LEVEL MONITORING	780	17.5	762.5	626.5		Bavarian Trucking Co Inc	Solid Waste
80003239	38.85917	-84.6619	Verona	Boone	7/22/1993	MONITORING WELL - AMBIENT MONITORING	740	18.2	721.8	585.8		Bavarian Trucking Co Inc	Solid Waste
80003240	38.85944	-84.6628	Verona	Boone	7/10/1993	MONITORING WELL - AMBIENT MONITORING	720	27	693	557		Bavarian Trucking Co Inc	Solid Waste
80003241	38.85972	-84.6639	Verona	Boone	7/10/1993	MONITORING WELL - AMBIENT MONITORING	720	22.9	697.1	561.1		Bavarian Trucking Co Inc	Solid Waste
80003242	38.85917	-84.665	Verona	Boone	7/21/1993	MONITORING WELL - AMBIENT MONITORING	720	18.4	701.6	565.6		Bavarian Trucking Co Inc	Solid Waste
80003243	38.85972	-84.6667	Verona	Boone	7/21/1993	MONITORING WELL - AMBIENT MONITORING	700	18.1	681.9	545.9		Bavarian Trucking Co Inc	Solid Waste
80003244	38.85944	-84.6678	Verona	Boone	7/20/1993	MONITORING WELL - AMBIENT MONITORING	720	18.9	701.1	565.1		Bavarian Trucking Co Inc	Solid Waste
80003245	38.85556	-84.6678	Verona	Boone	12/30/2000	MONITORING WELL - AMBIENT MONITORING	800	18.1	781.9	645.9		Bavarian Trucking Co Inc	Solid Waste
80003245	38.85556	-84.6678	Verona	Boone	12/30/2000	MONITORING WELL - AMBIENT MONITORING	800	18.1	781.9	645.9		Bavarian Trucking Co Inc	Solid Waste
80003245	38.85556	-84.6678	Verona	Boone	7/14/1993	MONITORING WELL - AMBIENT MONITORING	800	18.1	781.9	645.9		Bavarian Trucking Co Inc	Solid Waste
80003245	38.85556	-84.6678	Verona	Boone	7/14/1993	MONITORING WELL - AMBIENT MONITORING	800	18.1	781.9	645.9		Bavarian Trucking Co Inc	Solid Waste
80003245	38.85556	-84.6678	Verona	Boone	12/30/2000	MONITORING WELL - AMBIENT MONITORING	800	18.1	781.9	645.9		Bavarian Trucking Co Inc	Solid Waste
80003245	38.85556	-84.6678	Verona	Boone	12/30/2000	MONITORING WELL - AMBIENT MONITORING	800	18.1	781.9	645.9		Bavarian Trucking Co Inc	Solid Waste
80003245	38.85556	-84.6678	Verona	Boone	7/14/1993	MONITORING WELL - AMBIENT MONITORING	800	18.1	781.9	645.9		Bavarian Trucking Co Inc	Solid Waste
80003245	38.85556	-84.6678	Verona	Boone	7/14/1993	MONITORING WELL - AMBIENT MONITORING	800	18.1	781.9	645.9		Bavarian Trucking Co Inc	Solid Waste
80003246	38.86	-84.6642	Verona	Boone	7/27/1993	MONITORING WELL - AMBIENT MONITORING	720	18.3	701.7	565.7		Bavarian Trucking Co Inc	Solid Waste
80011401	38.86139	-84.6542	Verona	Boone	1/1/1900	MONITORING WELL - AMBIENT MONITORING	847.49					Bavarian Trucking Co Inc	Solid Waste
80011402	38.86167	-84.6539	Verona	Boone	1/1/1900	MONITORING WELL - AMBIENT MONITORING	847.92					Bavarian Trucking Co Inc	Solid Waste
80011403	38.85778	-84.6592	Verona	Boone	1/1/1900	MONITORING WELL - AMBIENT MONITORING	833.59					Bavarian Trucking Co Inc	Solid Waste
80011404	38.85806	-84.6589	Verona	Boone	1/1/1900	MONITORING WELL - AMBIENT MONITORING	833.65					Bavarian Trucking Co Inc	Solid Waste
80011405	38.85583	-84.6619	Verona	Boone	1/1/1900	MONITORING WELL - AMBIENT MONITORING	834.72					Bavarian Trucking Co Inc	Solid Waste
80011406	38.855	-84.6639	Verona	Boone	1/1/1900	MONITORING WELL - AMBIENT MONITORING	816.7					Bavarian Trucking Co Inc	Solid Waste
80011407	38.85611	-84.6672	Verona	Boone	1/1/1900	MONITORING WELL - AMBIENT MONITORING	800.5					Bavarian Trucking Co Inc	Solid Waste
80011408	38.85861	-84.67	Verona	Boone	1/1/1900	MONITORING WELL - AMBIENT MONITORING	766.27					Bavarian Trucking Co Inc	Solid Waste
80011409	38.86	-84.6692	Verona	Boone	1/1/1900	MONITORING WELL - AMBIENT MONITORING	767.85					Bavarian Trucking Co Inc	Solid Waste
80011410	38.86222	-84.6689	Verona	Boone	1/1/1900	MONITORING WELL - AMBIENT MONITORING	641.24					Bavarian Trucking Co Inc	Solid Waste
80011411	38.86222	-84.6669	Verona	Boone	1/1/1900	MONITORING WELL - AMBIENT MONITORING	643.85					Bavarian Trucking Co Inc	Solid Waste
80011412	38.86222	-84.6681	Verona	Boone	1/1/1900	MONITORING WELL - AMBIENT MONITORING	604.9					Bavarian Trucking Co Inc	Solid Waste
80011413	38.8625	-84.6622	Verona	Boone	1/1/1900	MONITORING WELL - AMBIENT MONITORING	828.1					Bavarian Trucking Co Inc	Solid Waste
80011414	38.8625	-84.6622	Verona	Boone	1/1/1900	MONITORING WELL - AMBIENT MONITORING	828.01					Bavarian Trucking Co Inc	Solid Waste
80011415	38.86417	-84.6594	Verona	Boone	1/1/1900	MONITORING WELL - AMBIENT MONITORING	780.48					Bavarian Trucking Co Inc	Solid Waste
80011416	38.86417	-84.6589	Verona	Boone	1/1/1900	MONITORING WELL - AMBIENT MONITORING	780.26					Bavarian Trucking Co Inc	Solid Waste
80011417	38.86556	-84.6625	Verona	Boone	1/1/1900	MONITORING WELL - AMBIENT MONITORING	784.79					Bavarian Trucking Co Inc	Solid Waste

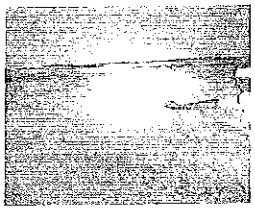
AKGWA NUMBER	lat27	lon27	Quadrangle	County	Construction Date	Primary Use	Surface Elevation	Total Depth	Bottom Elevation	Delta to Mine Roof	Owner	Owner Business	Regulatory Program
80011418	38.86361	-84.6642	Verona	Boone	1/1/1900	MONITORING WELL - AMBIENT MONITORING	762.46					Bavarian Trucking Co Inc	Solid Waste
80011419	38.86361	-84.6583	Verona	Boone	1/1/1900	MONITORING WELL - AMBIENT MONITORING	784.17					Bavarian Trucking Co Inc	Solid Waste
80012127	38.90417	-84.8358	Rising Sun	Boone	11/10/1980	MONITORING WELL - AMBIENT MONITORING	530	86	444	308		Cincinnati Gas & Electric	Solid Waste
80012127	38.90417	-84.8358	Rising Sun	Boone	11/10/1980	MONITORING WELL - AMBIENT MONITORING	530	86	444	308		Duke Energy Kentucky Inc	Solid Waste
80012133	38.90083	-84.8483	Rising Sun	Boone	11/26/1980	MONITORING WELL - AMBIENT MONITORING	475	57	418	282		Cincinnati Gas & Electric	Solid Waste
80012133	38.90083	-84.8483	Rising Sun	Boone	11/26/1980	MONITORING WELL - AMBIENT MONITORING	475	57	418	282		Duke Energy Kentucky Inc	Solid Waste
80012134	38.90083	-84.8411	Rising Sun	Boone	11/13/1980	MONITORING WELL - AMBIENT MONITORING	475	108	367	231		Cincinnati Gas & Electric	Solid Waste
80012134	38.90083	-84.8411	Rising Sun	Boone	11/13/1980	MONITORING WELL - AMBIENT MONITORING	475	108	367	231		Duke Energy Kentucky Inc	Solid Waste
80012135	38.90111	-84.8361	Rising Sun	Boone	3/28/1991	MONITORING WELL - AMBIENT MONITORING	475	33	442	306		Cincinnati Gas & Electric	Solid Waste
80012135	38.90111	-84.8361	Rising Sun	Boone	3/28/1991	MONITORING WELL - AMBIENT MONITORING	475	33	442	306		Duke Energy Kentucky Inc	Solid Waste
80012488	38.81611	-84.7694	Patriot	Gallatin	4/20/1994	MONITORING WELL - AMBIENT MONITORING	680	18	662	526		Old Starlite Tavern	UST
80012489	38.81611	-84.7694	Patriot	Gallatin	4/20/1994	MONITORING WELL - AMBIENT MONITORING	680	15	665	529		Old Starlite Tavern	UST
80012490	38.81611	-84.7694	Patriot	Gallatin	4/20/1994	MONITORING WELL - AMBIENT MONITORING	680	8.5	671.5	535.5		Old Starlite Tavern	UST
80026034	38.85972	-84.6603	Verona	Boone	5/8/1995	MONITORING WELL - AMBIENT MONITORING	759.34	16	743.34	607.34		Bavarian Trucking Co Inc	Solid Waste
80026035	38.86	-84.665	Verona	Boone	5/10/1995	MONITORING WELL - AMBIENT MONITORING	723.22	16.3	706.92	570.92		Bavarian Trucking Co Inc	Solid Waste
80026544	38.90278	-84.8417	Rising Sun	Boone	11/1/1993	MONITORING WELL - AMBIENT MONITORING	540	80	460	324		Cincinnati Gas & Electric	Solid Waste
80026544	38.90278	-84.8417	Rising Sun	Boone	11/1/1993	MONITORING WELL - AMBIENT MONITORING	540	80	460	324		Duke Energy Kentucky Inc	Solid Waste
80026545	38.90056	-84.8419	Rising Sun	Boone	10/13/1995	MONITORING WELL - AMBIENT MONITORING	475	41	434	298		Cincinnati Gas & Electric	Solid Waste
80026545	38.90056	-84.8419	Rising Sun	Boone	10/13/1995	MONITORING WELL - AMBIENT MONITORING	475	41	434	298		Duke Energy Kentucky Inc	Solid Waste
80026547	38.90417	-84.8444	Rising Sun	Boone	10/17/1995	MONITORING WELL - AMBIENT MONITORING	520	80.5	439.5	303.5		Cincinnati Gas & Electric	Solid Waste
80026547	38.90417	-84.8444	Rising Sun	Boone	10/17/1995	MONITORING WELL - AMBIENT MONITORING	520	80.5	439.5	303.5		Duke Energy Kentucky Inc	Solid Waste
80026549	38.90194	-84.8292	Rising Sun	Boone	10/18/1995	MONITORING WELL - AMBIENT MONITORING	470	30.5	439.5	303.5		Cincinnati Gas & Electric	Solid Waste
80026549	38.90194	-84.8292	Rising Sun	Boone	10/18/1995	MONITORING WELL - AMBIENT MONITORING	470	30.5	439.5	303.5		Duke Energy Kentucky Inc	Solid Waste
80029573	38.90121	-84.8476	Rising Sun	Boone	11/30/2005	MONITORING WELL - AMBIENT MONITORING		120				Cincinnati Gas & Electric	Solid Waste
80029573	38.90121	-84.8476	Rising Sun	Boone	11/30/2005	MONITORING WELL - AMBIENT MONITORING		120				Duke Energy Kentucky Inc	Solid Waste
80029577	38.902	-84.8484	Rising Sun	Boone	12/2/2005	MONITORING WELL - AMBIENT MONITORING		120				Cincinnati Gas & Electric	Solid Waste
80029577	38.902	-84.8484	Rising Sun	Boone	12/2/2005	MONITORING WELL - AMBIENT MONITORING		120				Duke Energy Kentucky Inc	Solid Waste
80029864	38.74278	-84.8358	Glencoe	Gallatin	5/29/1996	MONITORING WELL - AMBIENT MONITORING	680	7.5	672.5	536.5		Glencoe Carry-out	UST
80029865	38.74278	-84.8358	Glencoe	Gallatin	5/29/1996	MONITORING WELL - AMBIENT MONITORING	680	12	668	532		Glencoe Carry-out	UST
80029872	38.74278	-84.8358	Glencoe	Gallatin	6/7/1996	MONITORING WELL - AMBIENT MONITORING	680	15	665	529		Glencoe Carry-out	UST
80029873	38.74278	-84.8358	Glencoe	Gallatin	6/7/1996	MONITORING WELL - AMBIENT MONITORING	680	13	667	531		Glencoe Carry-out	UST
80029874	38.74278	-84.8358	Glencoe	Gallatin	6/7/1996	MONITORING WELL - AMBIENT MONITORING	680	23	657	521		Glencoe Carry-out	UST
80029875	38.74278	-84.8358	Glencoe	Gallatin	6/7/1996	MONITORING WELL - AMBIENT MONITORING	680	30	650	514		Glencoe Carry-out	UST
80030354	38.74278	-84.8358	Glencoe	Gallatin	6/19/1996	MONITORING WELL - AMBIENT MONITORING	680	30	650	514		Glencoe Carry-out	UST
80030355	38.74278	-84.8358	Glencoe	Gallatin	6/19/1996	MONITORING WELL - AMBIENT MONITORING	680	18	662	526		Glencoe Carry-out	UST
80030356	38.74278	-84.8358	Glencoe	Gallatin	6/20/1996	MONITORING WELL - AMBIENT MONITORING	680	43	637	501		Glencoe Carry-out	UST
80030955	38.74222	-84.8347	Glencoe	Gallatin	9/4/1996	MONITORING WELL - AMBIENT MONITORING	690	25	665	529		Glencoe Carry-out	UST
80030956	38.74222	-84.8347	Glencoe	Gallatin	9/4/1996	MONITORING WELL - AMBIENT MONITORING	690	25	665	529		Glencoe Carry-out	UST
80032432	38.86667	-84.6483	Verona	Boone	7/12/1999	MONITORING WELL - AMBIENT MONITORING	840	23.7	816.3	680.3		Bavarian Trucking Co Inc	Solid Waste
80032433	38.86667	-84.6483	Verona	Boone	7/12/1999	MONITORING WELL - AMBIENT MONITORING	831	30.5	800.5	664.5		Bavarian Trucking Co Inc	Solid Waste
80035870	38.74194	-84.8347	Glencoe	Gallatin	11/9/1998	MONITORING WELL - AMBIENT MONITORING	700	30.5	669.5	533.5		Glencoe Carry-out	UST
80035879	38.74222	-84.8347	Glencoe	Gallatin	11/9/1998	MONITORING WELL - AMBIENT MONITORING	690	6	684	548		Glencoe Carry-out	UST
80035880	38.74222	-84.8347	Glencoe	Gallatin	11/9/1998	MONITORING WELL - AMBIENT MONITORING	690	7	683	547		Glencoe Carry-out	UST
80037728	38.88611	-84.7522	Rising Sun	Boone	7/16/2004	MONITORING WELL - AMBIENT MONITORING	460					Kentucky State Parks	
80038750	38.74278	-84.8358	Glencoe	Gallatin	1/12/2000	MONITORING WELL - AMBIENT MONITORING	680	20.2	659.8	523.8		Glencoe Carry-out	UST
80039695	38.77111	-84.9311	Florence	Gallatin	5/24/2000	MONITORING WELL - AMBIENT MONITORING	460	15.5	444.5	308.5		Dans Marina	UST
80039696	38.77111	-84.9311	Florence	Gallatin	5/24/2000	MONITORING WELL - AMBIENT MONITORING	460	15.5	444.5	308.5		Dans Marina	UST
80039697	38.77111	-84.9311	Florence	Gallatin	5/24/2000	MONITORING WELL - AMBIENT MONITORING	460	15.5	444.5	308.5		Dans Marina	UST
80040053	38.77556	-84.9156	Florence	Gallatin	9/29/2000	MONITORING WELL - AMBIENT MONITORING	490	139	351	215		Warsaw Water Works	
80040054	38.78444	-84.9092	Florence	Gallatin	9/29/2000	MONITORING WELL - AMBIENT MONITORING	480	117	363	227		Warsaw Water Works	
80043988	38.74278	-84.8358	Glencoe	Carroll	10/29/2001	MONITORING WELL - AMBIENT MONITORING	680	25	655	519		Glencoe Carry-out	UST
80044011	38.87861	-84.6994	Union	Boone	12/4/2001	MONITORING WELL - AMBIENT MONITORING	740	6.5	733.5	597.5		Matracia & Matracia Partnershi	UST

AKGWA NUMBER	lat27	lon27	Quadrangle	County	Construction Date	Primary Use	Surface Elevation	Total Depth	Bottom Elevation	Delta to Mine Roof	Owner	Owner Business	Regulatory Program
80044012	38.87861	-84.6994	Union	Boone	12/4/2001	MONITORING WELL - AMBIENT MONITORING	740	10.2	729.8	593.8		Matracia & Matracia Partnershi	UST
80044013	38.87861	-84.6994	Union	Boone	12/4/2001	MONITORING WELL - AMBIENT MONITORING	740	9.3	730.7	594.7		Matracia & Matracia Partnershi	UST
80044014	38.87861	-84.6994	Union	Boone	12/4/2001	MONITORING WELL - AMBIENT MONITORING	740	9	731	595		Matracia & Matracia Partnershi	UST
80049181	38.76056	-84.7889	Patriot	Gallatin	5/4/2004	MONITORING WELL - AMBIENT MONITORING	850					Napoleon Grocery	UST
80049182	38.76056	-84.7889	Patriot	Gallatin	5/3/2004	MONITORING WELL - AMBIENT MONITORING	850					Napoleon Grocery	UST
80049185	38.76056	-84.7889	Patriot	Gallatin	5/3/2004	MONITORING WELL - AMBIENT MONITORING	850					Napoleon Grocery	UST
80049186	38.76056	-84.7889	Patriot	Gallatin	5/4/2004	MONITORING WELL - AMBIENT MONITORING	850					Napoleon Grocery	UST
80049425	38.87861	-84.6994	Union	Boone	1/5/2004	MONITORING WELL - AMBIENT MONITORING	740	6	734	598		Matracia & Matracia Partnershi	UST
80049426	38.87861	-84.6994	Union	Boone	1/5/2004	MONITORING WELL - AMBIENT MONITORING	740	8	732	596		Matracia & Matracia Partnershi	UST
80049427	38.87861	-84.6994	Union	Boone	1/5/2004	MONITORING WELL - AMBIENT MONITORING	740	8.5	731.5	595.5		Matracia & Matracia Partnershi	UST
80049428	38.87861	-84.6994	Union	Boone	1/5/2004	MONITORING WELL - AMBIENT MONITORING	740	6.5	733.5	597.5		Matracia & Matracia Partnershi	UST
80049429	38.87861	-84.6994	Union	Boone	1/5/2004	MONITORING WELL - AMBIENT MONITORING	740	4	736	600		Matracia & Matracia Partnershi	UST
80050961	38.85639	-84.6669	Verona	Boone	11/9/2005	MONITORING WELL - AMBIENT MONITORING	800					Bavarian Trucking Co Inc	Solid Waste
80053954	38.90083	-84.8369	Rising Sun	Boone	9/20/2007	MONITORING WELL - AMBIENT MONITORING		45				Duke Energy Kentucky Inc	Solid Waste
80053955	38.90389	-84.8369	Rising Sun	Boone	9/18/2007	MONITORING WELL - AMBIENT MONITORING		117.5				Duke Energy Kentucky Inc	Solid Waste

Exhibit 6C

Sterling Materials – Verona, KY
Underground Cross Section





Pencil Cave Bentonite Seam
Thickness: ≈ 18"
Elevation: +266'

Mud Cave Bentonite Seam
Thickness: ≈ 24"
Elevation: +247'

Surface Varies from 500' to 800'

+500' (Top of Slope Elevation)

+393' (Mine Entrance Elevation)

Gypsum – Delivery Shaft

+266' – Pencil Cave Bentonite Seam Elevation

+247' – Mud Cave Bentonite Seam Elevation

+136' (Avg Level 1 Ceiling Elevation)

1st Level

+86' (Avg Level 1 Floor Elevation)

+28' (Avg Level 2 Ceiling Elevation)

2nd Level

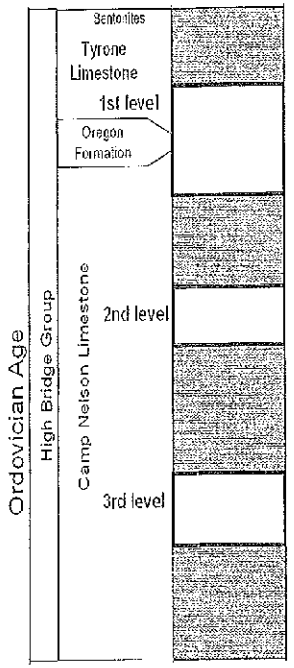
+2' (Avg Level 1 Floor Elevation)

-149' (Avg Level 3 Ceiling Elevation)

3rd Level

-182' (Avg Level 1 Floor Elevation)

Interior Mine Photo: Typical Storage Area



Notes:
- Drawing Not to Scale.
- Mine ceiling and floor elevations are based on average elevations across each level.
- Bentonite Seam and Rock Stratigraphy Information Resource: Kentucky Geological Survey, University of Kentucky, Lexington Series X, 1974. High Carbonate Rock in the High Bridge Group (Middle Ordovician), Boone County, Kentucky. Author: Garland R. Dever, Jr.
- Elevations are referenced at Sea Level.

DEP 7059F (1/06)

Attachment 7
Special Waste Sources and Amounts Log Sheet

1. Registrant Name: _____ 2. County: _____

3. Agency Interest #: _____ 4. Registration #: ____-_____

5. Contact Person: _____ 6. Title: _____

7. Phone #: (___)___-____ 8. Fax #: (___)___-____ 9. Cell #: (___)___-____

Report prepared for the months of: _____, _____ and _____ Year: ____

Name of Special Waste Generator (Source of Special Waste)	Amount Received (Dry Tons)

10. **"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for such violations."**

Authorized Signature _____ Date _____

Name: (Typed or Printed) _____ Title: _____

Annual Revenue Requirements - Ghent Landfill - KU Project 30 with Beneficial Reuse -Sterling Ventures Mine

	Capital					O&M				Total
	Phase 1	Phase 2	Phase 3	Final Cap	Total	Non-Power	Power	Beneficial Reuse	Total O&M	
12/31/2009	480,509	-	-		480,509		84,800	-	84,800	565,309
12/31/2010	3,553,056	-	-		3,553,056		127,832	-	127,832	3,680,888
12/31/2011	7,177,211	-	-		7,177,211		198,348	-	198,348	7,375,559
12/31/2012	13,654,069	-	-		13,654,069		294,577	-	294,577	13,948,646
12/31/2013	14,678,389	-	-		14,678,389		24,380,117	(489,556)	23,890,561	38,568,950
12/31/2014	15,152,993	-	-		15,152,993		26,056,704	(495,467)	25,561,237	40,714,230
12/31/2015	14,539,006	-	-		14,539,006		27,290,868	(436,289)	26,854,579	41,393,584
12/31/2016	13,883,815	-	-		13,883,815		28,578,421	(387,511)	28,190,911	42,074,725
12/31/2017	13,255,915	-	-		13,255,915		29,956,559	(348,918)	29,607,640	42,863,556
12/31/2018	12,653,016	-	-		12,653,016		31,612,174	(501,636)	31,110,538	43,763,554
12/31/2019	12,016,402	-	-		12,016,402		33,594,783	(873,325)	32,721,458	44,737,860
12/31/2020	11,379,788	-	-		11,379,788		35,566,861	(1,101,031)	34,465,830	45,845,618
12/31/2021	10,743,173	-	-		10,743,173		38,056,766	(1,114,736)	36,942,030	47,685,203
12/31/2022	10,106,559	-	-		10,106,559		39,920,041	(1,025,754)	38,894,287	49,000,846
12/31/2023	9,469,945	-	-		9,469,945		41,890,306	(931,433)	40,958,872	50,428,818
12/31/2024	8,833,331	-	-		8,833,331		44,529,811	(1,382,478)	43,147,333	51,980,664
12/31/2025	8,196,717	-	-		8,196,717		47,885,193	(2,392,499)	45,492,694	53,689,411
12/31/2026	7,560,103	52,720	-		7,612,823		51,399,644	(3,382,211)	48,017,432	55,630,256
12/31/2027	6,923,489	156,032	-		7,079,520		54,431,913	(3,728,255)	50,703,658	57,783,179
12/31/2028	6,286,875	993,170	-		7,280,044		55,178,509	(3,378,832)	51,799,676	59,079,720
12/31/2029	5,650,260	2,639,761	-		8,290,021		57,858,589	(2,798,637)	55,059,952	63,349,973
12/31/2030	5,013,646	3,691,001	-		8,704,647		60,699,474	(2,349,913)	58,349,561	67,054,208
12/31/2031	4,377,032	3,904,584	-		8,281,616		63,710,812	(2,101,930)	61,608,882	69,890,498
12/31/2032	3,740,418	3,734,217	-		7,474,635		66,902,830	(1,942,577)	64,960,253	72,434,888
12/31/2033	3,103,804	3,563,850	-		6,667,654		70,286,369	(1,773,662)	68,512,707	75,180,361
12/31/2034	2,467,190	3,393,483	-		5,860,673		73,872,921	(1,594,613)	72,278,307	78,138,980
12/31/2035	1,830,576	3,223,116	-		5,053,692		77,674,665	(1,404,821)	76,269,844	81,323,536
12/31/2036	1,193,961	3,052,749	-		4,246,711		81,704,515	(1,203,641)	80,500,873	84,747,584
12/31/2037	557,347	2,882,383	-		3,439,730		85,976,155	(990,391)	84,985,764	88,425,494
2009 PVRR	111,212,472	5,355,077	-		116,567,550		354,316,774	(10,448,976)	343,867,798	460,435,348
Cubic Yards	17,350,000	7,807,500			25,157,500		25,157,500		25,157,500	25,157,500
									$/CY (PVRR)	$ 18.30

CASE	Option 30	Option 30 with Benefical Reuse
PVRR		
Capital	$ 192,717,582	$ 116,567,550
O&M	354,316,774	343,867,798
Total	$ 547,034,356	$ 460,435,348
Delta to Least Cost	**$ 86,599,008**	Least Cost
Unit Cost (2009 PVRR $/CY)	$ 21.74	$ 18.30

NOTE-This Table Requires $9.00 Price Inserted into cell D16 of PVRR Analysis

Annual Revenue Requirements - Ghent Landfill - KU Project 30 with Beneficial Reuse -Sterling Ventures Mine With Scrubber Stone Backhaul

	Capital					O&M				Total
	Phase 1	Phase 2	Phase 3	Final Cap	Total	Non-Power	Power	Beneficial Reuse	Total O&M	
12/31/2009	480,509	-	-		480,509		84,800	-	84,800	565,309
12/31/2010	3,553,056	-	-		3,553,056		127,832	-	127,832	3,680,888
12/31/2011	7,177,211	-	-		7,177,211		198,348	-	198,348	7,375,559
12/31/2012	13,654,069	-	-		13,654,069		294,577	-	294,577	13,948,646
12/31/2013	14,678,389	-	-		14,678,389		24,380,117	(1,989,556)	22,390,561	37,068,950
12/31/2014	15,152,993	-	-		15,152,993		26,056,704	(2,085,467)	23,971,237	39,124,230
12/31/2015	14,539,006	-	-		14,539,006		27,290,868	(2,121,689)	25,169,179	39,708,184
12/31/2016	13,883,815	-	-		13,883,815		28,578,421	(2,174,035)	26,404,387	40,288,201
12/31/2017	13,255,915	-	-		13,255,915		29,956,559	(2,242,634)	27,713,925	40,969,840
12/31/2018	12,653,016	-	-		12,653,016		31,612,174	(2,508,974)	29,103,199	41,756,215
12/31/2019	12,016,402	-	-		12,016,402		33,594,783	(3,001,104)	30,593,680	42,610,081
12/31/2020	11,379,788	-	-		11,379,788		35,566,861	(3,356,477)	32,210,385	43,590,172
12/31/2021	10,743,173	-	-		10,743,173		38,056,766	(3,505,508)	34,551,257	45,294,431
12/31/2022	10,106,559	-	-		10,106,559		39,920,041	(3,559,973)	36,360,069	46,466,628
12/31/2023	9,469,945	-	-		9,469,945		41,890,306	(3,617,705)	38,272,601	47,742,546
12/31/2024	8,833,331	-	-		8,833,331		44,529,811	(4,229,926)	40,299,885	49,133,216
12/31/2025	8,196,717	-	-		8,196,717		47,885,193	(5,410,794)	42,474,399	50,671,116
12/31/2026	7,560,103	52,720	-		7,612,823		51,399,644	(6,581,604)	44,818,040	52,430,863
12/31/2027	6,923,489	156,032	-		7,079,520		54,431,913	(7,119,611)	47,312,302	54,391,823
12/31/2028	6,286,875	993,170	-		7,280,044		55,178,509	(6,973,670)	48,204,839	55,484,883
12/31/2029	5,650,260	2,639,761	-		8,290,021		57,858,589	(6,609,164)	51,249,425	59,539,446
12/31/2030	5,013,646	3,691,001	-		8,704,647		60,699,474	(6,389,072)	54,310,402	63,015,049
12/31/2031	4,377,032	3,904,584	-		8,281,616		63,710,812	(6,383,438)	57,327,373	65,608,989
12/31/2032	3,740,418	3,734,217	-		7,474,635		66,902,830	(6,480,976)	60,421,854	67,896,489
12/31/2033	3,103,804	3,563,850	-		6,667,654		70,286,369	(6,584,365)	63,702,004	70,369,657
12/31/2034	2,467,190	3,393,483	-		5,860,673		73,872,921	(6,693,958)	67,178,962	73,039,635
12/31/2035	1,830,576	3,223,116	-		5,053,692		77,674,665	(6,810,127)	70,864,538	75,918,230
12/31/2036	1,193,961	3,052,749	-		4,246,711		81,704,515	(6,933,266)	74,771,249	79,017,960
12/31/2037	557,347	2,882,383	-		3,439,730		85,976,155	(7,063,793)	78,912,362	82,352,092
2009 PVRR	111,212,472	5,355,077	-		116,567,550		354,316,774	(33,255,638)	321,061,136	437,628,685
Cubic Yards	17,350,000	7,807,500			25,157,500		25,157,500		25,157,500	25,157,500
									$/CY (PVRR)	$ 17.40

CASE	Option 30	Option 30 with Benefical Reuse
PVRR		
Capital	$ 192,717,582	$ 116,567,550
O&M	354,316,774	321,061,136
Total	$ 547,034,356	$ 437,628,685
Delta to Least Cost	**$ 109,405,671**	Least Cost
Unit Cost (2009 PVRR $/CY)	$ 21.74	$ 17.40

	Annual Revenue Requirements - Ghent Landfill - KU Project 30									
	Capital					O&M				Total
	Phase 1	Phase 2	Phase 3	Final Cap	Total	Non-Power	Power	Beneficial Reuse	Total O&M	
12/31/2009	480,509	-	-		480,509		84,800		84,800	565,309
12/31/2010	5,098,729	-	-		5,098,729		127,832		127,832	5,226,561
12/31/2011	11,571,793	-	-		11,571,793		198,348		198,348	11,770,141
12/31/2012	19,480,236	-	-		19,480,236		294,577		294,577	19,774,813
12/31/2013	20,326,462	-	-		20,326,462		24,380,117		24,380,117	44,706,579
12/31/2014	20,544,834	-	-		20,544,834		26,056,704		26,056,704	46,601,539
12/31/2015	19,687,280	-	-		19,687,280		27,290,868		27,290,868	46,978,148
12/31/2016	18,799,210	52,684	-		18,851,894		28,578,421		28,578,421	47,430,316
12/31/2017	17,948,314	155,939	-		18,104,253		29,956,559		29,956,559	48,060,812
12/31/2018	17,131,380	993,170	-		18,124,550		31,612,174		31,612,174	49,736,723
12/31/2019	16,268,561	2,639,761	-		18,908,322		33,594,783		33,594,783	52,503,105
12/31/2020	15,405,743	3,691,001	-		19,096,743		35,566,861		35,566,861	54,663,605
12/31/2021	14,542,924	3,904,584	-		18,447,508		38,056,766		38,056,766	56,504,274
12/31/2022	13,680,105	3,734,217	-		17,414,322		39,920,041		39,920,041	57,334,363
12/31/2023	12,817,286	3,563,850	-		16,381,136		41,890,306		41,890,306	58,271,442
12/31/2024	11,954,467	3,393,483	2,082,456		17,430,407		44,529,811		44,529,811	61,960,218
12/31/2025	11,091,649	3,223,116	6,215,971		20,530,736		47,885,193		47,885,193	68,415,929
12/31/2026	10,228,830	3,052,749	10,179,118		23,460,698		51,399,644		51,399,644	74,860,342
12/31/2027	9,366,011	2,882,383	11,617,513		23,865,907		54,431,913		54,431,913	78,297,820
12/31/2028	8,503,192	2,712,016	11,117,397		22,332,605		55,178,509		55,178,509	77,511,114
12/31/2029	7,640,374	2,541,649	10,617,281		20,799,303		57,858,589		57,858,589	78,657,892
12/31/2030	6,777,555	2,371,282	10,117,164		19,266,001		60,699,474		60,699,474	79,965,474
12/31/2031	5,914,736	2,200,915	9,617,048		17,732,699		63,710,812		63,710,812	81,443,510
12/31/2032	5,051,917	2,030,548	9,116,931		16,199,397		66,902,830		66,902,830	83,102,226
12/31/2033	4,189,098	1,860,181	8,616,815		14,666,095		70,286,369		70,286,369	84,952,464
12/31/2034	3,326,280	1,689,814	8,116,699		13,132,793		73,872,921		73,872,921	87,005,713
12/31/2035	2,463,461	1,519,447	7,616,582		11,599,490		77,674,665		77,674,665	89,274,156
12/31/2036	1,600,642	1,349,080	7,116,466		10,066,188		81,704,515		81,704,515	91,770,703
12/31/2037	737,823	1,178,714	6,616,349		8,532,886		85,976,155		85,976,155	94,509,041
2009 PVRR	153,383,226	14,945,173	24,389,184		192,717,582		354,316,774		354,316,774	547,034,356
Cubic Yards	9,542,500	6,072,500	9,542,500		25,157,500		25,157,500		25,157,500	25,157,500
									$/CY (PVRR)	$ 21.74

	A	B	C	D	E	F	G	H	I
1	Revenue Requirments Summary								
2	Gypsum Disposal at Sterling Materials					2009	2010	2011	2012
3									
4	Revenue Requirement								
5	Eligible Plant					$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356
6	Less Gypsum Plant Requirements/Phase Delays					$ -	$ (14,090,000)	$ (40,060,000)	$ (53,110,000)
7	Revised Eligible Plant					$ 4,321,671	$ 32,388,846	$ 65,425,803	$ 124,467,356
8	Less Accumulated Depreciation								
9	Less Deferred Tax Balance								
10	Environmental Compliance Rate Base					$ 4,321,671	$ 32,388,846	$ 65,425,803	$ 124,467,356
11	Rate of Return					11.1%	10.97%	10.97%	10.97%
12		Assumed	Tons (1.155)	1,000,000		$ 480,509	$ 3,553,056	$ 7,177,211	$ 13,654,069
13		86.7500%	Cubic yards	867,500					
14	Operating Expenses					$ 84,800	$ 121,349	$ 128,630	$ 136,348
15	less Gypsum to On-site Landfill								
16	Gypsum to Sterling			**$ 10.50**					
17	Net Operating					$ 84,800	$ 121,349	$ 128,630	$ 136,348
18	Annual Depreciation								
19	Annual Property Tax Expense						$ 6,483	$ 69,718	$ 158,229
20	Total OE					$ 84,800	$ 127,832	$ 198,348	$ 294,577
21									
22	Total E(m) Gypsum to Sterling				**$ 460,435,348**	$ 565,309	$ 3,680,888	$ 7,375,559	$ 13,948,646
23	Total E(m) - Project 30 (See below)				**$ 547,034,356**	$ 565,309	$ 5,226,561	$ 11,770,141	$ 19,774,813
24									
25	**Difference**		**PVRR**	**7.81%**	**$ (86,599,008)**	$ -	$ (1,545,673)	$ (4,394,582)	$ (5,826,167)
26	Date					12/31/2009	12/31/2010	12/31/2011	12/31/2012
27									
28	Revenue Requirments Summary								
29	2009 Amended Plan								
30	Project 30		Ghent Landfill Phase I						
31	See Exhibit B					2009	2010	2011	2012
32									
33	Revenue Requirement								
34	Eligible Plant					$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356
35	Less Gypsum Plant Requirements/Phase Delays					$ -	$ -	$ -	$ -
36	Revised Eligible Plant					$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356
37	Less Accumulated Depreciation								
38	Less Deferred Tax Balance								
39	Environmental Compliance Rate Base					$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356
40	Rate of Return					11.1%	10.97%	10.97%	10.97%
41						$ 480,509	$ 5,098,729	$ 11,571,793	$ 19,480,236
42									
43	Operating Expenses					$ 84,800	$ 121,349	$ 128,630	$ 136,348
44	less Gypsum to On-site Landfill								
45	Gypsum to Sterling								
46	Net Operating					$ 84,800	$ 121,349	$ 128,630	$ 136,348
47	Annual Depreciation								
48	Annual Property Tax Expense						$ 6,483	$ 69,718	$ 158,229
49	Total OE					$ 84,800	$ 127,832	$ 198,348	$ 294,577
50									
51	Total E(m) Gypsum to On-site Landfill as Calculated				**547,034,356**	$ 565,309	$ 5,226,561	$ 11,770,141	$ 19,774,813

	J	K	L	M	N	O	P	Q	R	S	T	U	V
1													
2	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
3													
4													
5	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 203,078,976	$ 204,078,976	$ 212,078,976	$ 228,078,976	$ 239,078,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 262,328,976	$ 302,328,976
6	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,610,000)	$ (54,610,000)	$ (62,610,000)	$ (78,610,000)	$ (89,610,000)	$ (93,110,000)	$ (93,110,000)	$ (93,110,000)	$ (112,860,000)	$ (152,860,000)
7	$ 138,023,918	$ 148,831,953	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976
8	$ (3,690,414)	$ (7,842,826)	$ (12,013,010)	$ (16,183,194)	$ (20,353,378)	$ (24,523,563)	$ (28,693,747)	$ (32,863,931)	$ (37,034,115)	$ (41,204,299)	$ (45,374,483)	$ (49,544,667)	$ (53,714,851)
9	$ (528,683)	$ (2,857,926)	$ (4,921,730)	$ (6,724,117)	$ (8,277,719)	$ (9,603,427)	$ (11,236,471)	$ (12,869,515)	$ (14,502,559)	$ (16,135,603)	$ (17,768,648)	$ (19,401,692)	$ (21,034,736)
10	$ 133,804,821	$ 138,131,202	$ 132,534,236	$ 126,561,665	$ 120,837,879	$ 115,341,986	$ 109,538,758	$ 103,735,530	$ 97,932,302	$ 92,129,073	$ 86,325,845	$ 80,522,617	$ 74,719,389
11	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
12	$ 14,678,389	$ 15,152,993	$ 14,539,006	$ 13,883,815	$ 13,255,915	$ 12,653,016	$ 12,016,402	$ 11,379,788	$ 10,743,173	$ 10,106,559	$ 9,469,945	$ 8,833,331	$ 8,196,717
13								$ 27,051	$ 661,940				
14	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,556	**$ 28,601,000**	**$ 30,979,000**	$ 32,837,740	$ 34,808,004	$ 36,896,485	$ 39,110,274
15	$ (9,569,527)	$ (10,143,699)	$ (10,752,321)	$ (11,397,460)	$ (12,081,307)	$ (12,806,186)	$ (13,574,557)	$ (14,389,030)	$ (15,252,372)	$ (16,167,515)	$ (17,137,565)	$ (18,165,819)	$ (19,255,768)
16	$ 10,500,000	$ 11,130,000	$ 11,797,800	$ 12,505,668	$ 13,256,008	$ 14,051,369	$ 14,894,451	$ 15,788,118	$ 16,735,405	$ 17,739,529	$ 18,803,901	$ 19,932,135	$ 21,128,063
17	$ 19,933,781	$ 21,129,808	$ 22,397,596	$ 23,741,452	$ 25,165,940	$ 26,675,896	$ 28,276,450	$ 30,000,087	$ 32,462,033	$ 34,409,755	$ 36,474,340	$ 38,662,800	$ 40,982,568
18	$ 3,690,414	$ 4,152,411	$ 4,170,184	$ 4,170,185	$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,170,184
19	$ 266,366	$ 279,017	$ 286,798	$ 279,274	$ 271,517	$ 264,458	$ 274,825	$ 295,558	$ 309,813	$ 314,348	$ 314,348	$ 314,348	$ 339,942
20	$ 23,890,561	$ 25,561,237	$ 26,854,579	$ 28,190,911	$ 29,607,640	$ 31,110,538	$ 32,721,458	$ 34,465,830	$ 36,942,030	$ 38,894,287	$ 40,958,872	$ 43,147,333	$ 45,492,694
21													
22	$ 38,568,950	$ 40,714,230	$ 41,393,584	$ 42,074,725	$ 42,863,556	$ 43,763,554	$ 44,737,860	$ 45,845,618	$ 47,685,203	$ 49,000,846	$ 50,428,818	$ 51,980,664	$ 53,689,411
23	$ 44,706,579	$ 46,601,539	$ 46,978,148	$ 47,430,316	$ 48,060,812	$ 49,736,723	$ 52,503,105	$ 54,663,605	$ 56,504,274	$ 57,334,363	$ 58,271,442	$ 61,960,218	$ 68,415,929
24													
25	$ (6,137,629)	$ (5,887,309)	$ (5,584,564)	$ (5,355,590)	$ (5,197,256)	$ (5,973,170)	$ (7,765,245)	$ (8,817,987)	$ (8,819,070)	$ (8,333,517)	$ (7,842,625)	$ (9,979,554)	$ (14,726,518)
26	12/31/2013	12/31/2014	12/31/2015	12/31/2016	12/31/2017	12/31/2018	12/31/2019	12/31/2020	12/31/2021	12/31/2022	12/31/2023	12/31/2024	12/31/2025
27													
28													
29													
30													
31	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
32				**Start Phase II**								**Start Phase III**	
33				$ 500,000	$ 1,000,000	$ 8,000,000	$ 16,000,000	$ 11,000,000	$ 3,500,000			$ 19,750,000	$ 40,000,000
34	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 203,078,976	$ 204,078,976	$ 212,078,976	$ 228,078,976	$ 239,078,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 262,328,976	$ 302,328,976
35	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
36	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 203,078,976	$ 204,078,976	$ 212,078,976	$ 228,078,976	$ 239,078,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 262,328,976	$ 302,328,976
37	$ (5,110,443)	$ (10,744,623)	$ (16,396,576)	$ (22,062,480)	$ (27,756,283)	$ (33,673,286)	$ (40,036,689)	$ (46,706,992)	$ (53,474,945)	$ (60,242,897)	$ (67,010,850)	$ (74,329,828)	$ (82,764,806)
38	$ (732,114)	$ (3,915,341)	$ (6,717,677)	$ (9,166,960)	$ (11,288,480)	$ (13,186,459)	$ (15,678,367)	$ (18,290,458)	$ (20,940,788)	$ (23,591,119)	$ (26,241,449)	$ (29,107,561)	$ (32,410,698)
39	$ 185,291,361	$ 187,281,989	$ 179,464,723	$ 171,849,536	$ 165,034,213	$ 165,219,232	$ 172,363,920	$ 174,081,526	$ 168,163,243	$ 158,744,960	$ 149,326,677	$ 158,891,587	$ 187,153,472
40	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
41	$ 20,326,462	$ 20,544,834	$ 19,687,280	$ 18,851,894	$ 18,104,253	$ 18,124,550	$ 18,908,322	$ 19,096,743	$ 18,447,508	$ 17,414,322	$ 16,381,136	$ 17,430,407	$ 20,530,736
42								$ 27,051	$ 661,940				
43	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,556	**$ 28,601,000**	**$ 30,979,000**	$ 32,837,740	$ 34,808,004	$ 36,896,485	$ 39,110,274
44	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
45	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
46	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,556	$ 28,601,000	$ 30,979,000	$ 32,837,740	$ 34,808,004	$ 36,896,485	$ 39,110,274
47	$ 5,110,443	$ 5,634,180	$ 5,651,953	$ 5,665,904	$ 5,693,803	$ 5,917,003	$ 6,363,403	$ 6,670,303	$ 6,767,953	$ 6,767,953	$ 6,767,953	$ 7,318,978	$ 8,434,978
48	$ 266,366	$ 279,017	$ 286,798	$ 279,274	$ 271,517	$ 264,458	$ 274,825	$ 295,558	$ 309,813	$ 314,348	$ 314,348	$ 314,348	$ 339,942
49	$ 24,380,117	$ 26,056,704	$ 27,290,868	$ 28,578,421	$ 29,956,559	$ 31,612,174	$ 33,594,783	$ 35,566,861	$ 38,056,766	$ 39,920,041	$ 41,890,306	$ 44,529,811	$ 47,885,193
50													
51	$ 44,706,579	$ 46,601,539	$ 46,978,148	$ 47,430,316	$ 48,060,812	$ 49,736,723	$ 52,503,105	$ 54,663,605	$ 56,504,274	$ 57,334,363	$ 58,271,442	$ 61,960,218	$ 68,415,929

	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI
1													
2	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	
3	**Start Phase II**												
4	$ 500,000	$ 1,000,000	$ 8,000,000	$ 16,000,000	$ 11,000,000	$ 3,500,000							
5	$ 342,328,976	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	
6	$ (192,360,000)	$ (209,031,024)	$ (201,031,024)	$ (185,031,024)	$ (174,031,024)	$ (170,531,024)	$ (170,531,024)	$ (170,531,024)	$ (170,531,024)	$ (170,531,024)	$ (170,531,024)	$ (170,531,024)	
7	$ 149,968,976	$ 150,968,976	$ 158,968,976	$ 174,968,976	$ 185,968,976	$ 189,468,976	$ 189,468,976	$ 189,468,976	$ 189,468,976	$ 189,468,976	$ 189,468,976	$ 189,468,976	
8	$ (57,898,986)	$ (62,111,020)	$ (66,546,254)	$ (71,427,888)	$ (76,616,422)	$ (81,902,606)	$ (87,188,790)	$ (92,474,974)	$ (97,761,158)	$ (103,047,342)	$ (108,333,526)	$ (113,619,710)	
9	$ (22,673,243)	$ (24,322,675)	$ (26,059,513)	$ (27,971,161)	$ (30,002,991)	$ (32,073,060)	$ (34,143,130)	$ (36,213,200)	$ (38,283,269)	$ (40,353,339)	$ (42,423,409)	$ (44,493,479)	
10	$ 69,396,748	$ 64,535,281	$ 66,363,209	$ 75,569,927	$ 79,349,563	$ 75,493,310	$ 68,137,056	$ 60,780,802	$ 53,424,548	$ 46,068,295	$ 38,712,041	$ 31,355,787	
11	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	
12	$ 7,612,823	$ 7,079,520	$ 7,280,044	$ 8,290,021	$ 8,704,647	$ 8,281,616	$ 7,474,635	$ 6,667,654	$ 5,860,673	$ 5,053,692	$ 4,246,711	$ 3,439,730	$ 259,765,660
13			$ (1,912,962)										
14	$ 41,456,890	$ 43,944,304	**$ 44,668,000**	$ 47,348,080	$ 50,188,965	$ 53,200,303	$ 56,392,321	$ 59,775,860	$ 63,362,412	$ 67,164,156	$ 71,194,006	$ 75,465,646	
15	$ (20,411,115)	$ (21,635,781)	$ (22,933,928)	$ (24,309,964)	$ (25,768,562)	$ (27,314,676)	$ (28,953,556)	$ (30,690,769)	$ (32,532,216)	$ (34,484,149)	$ (36,553,198)	$ (38,746,389)	
16	$ 22,395,747	$ 23,739,492	$ 25,163,861	$ 26,673,693	$ 28,274,114	$ 29,970,561	$ 31,768,795	$ 33,674,922	$ 35,695,418	$ 37,837,143	$ 40,107,371	$ 42,513,814	
17	$ 43,441,522	$ 46,048,014	$ 46,897,933	$ 49,711,809	$ 52,694,517	$ 55,856,188	$ 59,207,559	$ 62,760,013	$ 66,525,614	$ 70,517,151	$ 74,748,180	$ 79,233,071	
18	$ 4,184,134	$ 4,212,034	$ 4,435,234	$ 4,881,634	$ 5,188,534	$ 5,286,184	$ 5,286,184	$ 5,286,184	$ 5,286,184	$ 5,286,184	$ 5,286,184	$ 5,286,184	
19	$ 391,776	$ 443,610	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	
20	$ 48,017,432	$ 50,703,658	$ 51,799,676	$ 55,059,952	$ 58,349,561	$ 61,608,882	$ 64,960,253	$ 68,512,707	$ 72,278,307	$ 76,269,844	$ 80,500,873	$ 84,985,764	
21													
22	$ 55,630,256	$ 57,783,179	$ 59,079,720	$ 63,349,973	$ 67,054,208	$ 69,890,498	$ 72,434,888	$ 75,180,361	$ 78,138,980	$ 81,323,536	$ 84,747,584	$ 88,425,494	$ 1,471,356,097
23	$ 74,860,342	$ 78,297,820	$ 77,511,114	$ 78,657,892	$ 79,965,474	$ 81,443,510	$ 83,102,226	$ 84,952,464	$ 87,005,713	$ 89,274,156	$ 91,770,703	$ 94,509,041	$ 1,731,854,332
24													
25	$ (19,230,086)	$ (20,514,642)	$ (18,431,393)	$ (15,307,918)	$ (12,911,267)	$ (11,553,012)	$ (10,667,338)	$ (9,772,103)	$ (8,866,733)	$ (7,950,620)	$ (7,023,119)	$ (6,083,547)	**$ (260,498,235)**
26	12/31/2026	12/31/2027	12/31/2028	12/31/2029	12/31/2030	12/31/2031	12/31/2032	12/31/2033	12/31/2034	12/31/2035	12/31/2036	12/31/2037	
27													$ (260,498,235)
28													
29													
30													
31	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	
32													
33	$ 40,000,000	$ 17,671,024											$ 117,421,024
34	$ 342,328,976	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	
35	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
36	$ 342,328,976	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	
37	$ (92,315,784)	$ (102,359,783)	$ (112,403,782)	$ (122,447,782)	$ (132,491,781)	$ (142,535,780)	$ (152,579,779)	$ (162,623,779)	$ (172,667,778)	$ (182,711,777)	$ (192,755,777)	$ (202,799,776)	
38	$ (36,150,861)	$ (40,084,091)	$ (44,017,321)	$ (47,950,551)	$ (51,883,781)	$ (55,817,012)	$ (59,750,242)	$ (63,683,472)	$ (67,616,702)	$ (71,549,932)	$ (75,483,162)	$ (79,416,392)	
39	$ 213,862,331	$ 217,556,126	$ 203,578,896	$ 189,601,667	$ 175,624,438	$ 161,647,208	$ 147,669,979	$ 133,692,750	$ 119,715,520	$ 105,738,291	$ 91,761,061	$ 77,783,832	
40	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	
41	$ 23,460,698	$ 23,865,907	$ 22,332,605	$ 20,799,303	$ 19,266,001	$ 17,732,699	$ 16,199,397	$ 14,666,095	$ 13,132,793	$ 11,599,490	$ 10,066,188	$ 8,532,886	$ 482,133,777
42			$ (1,912,962)										
43	$ 41,456,890	$ 43,944,304	**$ 44,668,000**	$ 47,348,080	$ 50,188,965	$ 53,200,303	$ 56,392,321	$ 59,775,860	$ 63,362,412	$ 67,164,156	$ 71,194,006	$ 75,465,646	
44	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
45	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
46	$ 41,456,890	$ 43,944,304	$ 44,668,000	$ 47,348,080	$ 50,188,965	$ 53,200,303	$ 56,392,321	$ 59,775,860	$ 63,362,412	$ 67,164,156	$ 71,194,006	$ 75,465,646	
47	$ 9,550,978	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	
48	$ 391,776	$ 443,610	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	
49	$ 51,399,644	$ 54,431,913	$ 55,178,509	$ 57,858,589	$ 60,699,474	$ 63,710,812	$ 66,902,830	$ 70,286,369	$ 73,872,921	$ 77,674,665	$ 81,704,515	$ 85,976,155	$ 1,249,720,555
50													
51	$ 74,860,342	$ 78,297,820	$ 77,511,114	$ 78,657,892	$ 79,965,474	$ 81,443,510	$ 83,102,226	$ 84,952,464	$ 87,005,713	$ 89,274,156	$ 91,770,703	$ 94,509,041	$ 1,731,854,332

	A	B	C	D	E	F	G	H	I
52	Total E(m) Gypsum to On-site Landfill per KU					$ 565,309	$ 5,226,225	$ 11,769,378	$ 19,773,328
53									
54	Calculation Check Difference					$ -	$ 336	$ 763	$ 1,285
55									
56									
57	Site E/F	Hauling cost of Ash 2.25 mile round trip							
58		Haul Road Maintenance							
59	Total								
60	Reduce by 50% for Site M					$ -	$ -	$ -	$ -
61	**Difference**		**PVRR**	**7.81%**	**$ (21,865,903)**				

	J	K	L	M	N	O	P	Q	R	S	T	U	V
52	$ 44,705,239	$ 46,600,208	$ 46,976,843	$ 47,458,553	$ 48,044,547	$ 48,653,648							
53													
54	$ 1,340	$ 1,331	$ 1,305	$ (28,237)	$ 16,265	$ 1,083,075							
55													
56													
57	$ 2,822,723	$ 2,992,086	$ 3,171,612	$ 3,361,908	$ 3,563,623	$ 3,777,440	$ 4,004,087	$ 4,244,332	$ 4,498,992	$ 4,768,931	$ 5,055,067	$ 5,358,371	$ 5,679,873
58	$ 53,529	$ 56,741	$ 60,145	$ 63,754	$ 67,579	$ 71,634	$ 75,932	$ 80,488	$ 85,317	$ 90,436	$ 95,862	$ 101,614	$ 107,711
59	$ 2,876,252	$ 3,048,827	$ 3,231,757	$ 3,425,662	$ 3,631,202	$ 3,849,074	$ 4,080,018	$ 4,324,820	$ 4,584,309	$ 4,859,367	$ 5,150,929	$ 5,459,985	$ 5,787,584
60	$ 1,438,126	$ 1,524,414	$ 1,615,878	$ 1,712,831	$ 1,815,601	$ 1,924,537	$ 2,040,009	$ 2,162,410	$ 2,292,154	$ 2,429,684	$ 2,575,465	$ 2,729,993	$ 2,893,792
61													

	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI
52													
53													
54													
55													
56													
57	$ 6,020,666	$ 6,381,906	$ 6,764,820	$ 7,170,709	$ 7,600,952	$ 8,057,009	$ 8,540,429	$ 9,052,855	$ 9,596,026	$ 10,171,788	$ 10,782,095	$ 11,429,021	
58	$ 114,174	$ 121,024	$ 128,285	$ 135,982	$ 144,141	$ 152,790	$ 161,957	$ 171,675	$ 181,975	$ 192,894	$ 204,467	$ 216,735	
59	$ 6,134,839	$ 6,502,930	$ 6,893,105	$ 7,306,692	$ 7,745,093	$ 8,209,799	$ 8,702,387	$ 9,224,530	$ 9,778,002	$ 10,364,682	$ 10,986,563	$ 11,645,756	
60	$ 3,067,420	$ 3,251,465	$ 3,446,553	$ 3,653,346	$ 3,872,547	$ 4,104,899	$ 4,351,193	$ 4,612,265	$ 4,889,001	$ 5,182,341	$ 5,493,281	$ 5,822,878	
61													

Cell: D16
Comment: John Walters:
Insert $9.00 for Limestone Backhaul calculation

	A	B	C	D	E	F	G	H	I
1		**Annual Revenue Requirements - Ghent Landfill - KU Project 30**							
2									
3		Capital					O&M		
4									
5									Beneficial
6		Phase 1	Phase 2	Phase 3	Final Cap	Total	Non-Power	Power	Reuse
7	12/31/2009	480,509	-	-		480,509		84,800	
8	12/31/2010	5,098,729	-	-		5,098,729		127,832	
9	12/31/2011	11,571,793	-	-		11,571,793		198,348	
10	12/31/2012	19,480,236	-	-		19,480,236		294,577	
11	12/31/2013	20,326,462	-	-		20,326,462		24,380,117	
12	12/31/2014	20,544,834	-	-		20,544,834		26,056,704	
13	12/31/2015	19,687,280	-	-		19,687,280		27,290,868	
14	12/31/2016	18,799,210	52,684	-		18,851,894		28,578,421	
15	12/31/2017	17,948,314	155,939	-		18,104,253		29,956,559	
16	12/31/2018	17,131,380	993,170	-		18,124,550		31,612,174	
17	12/31/2019	16,268,561	2,639,761	-		18,908,322		33,594,783	
18	12/31/2020	15,405,743	3,691,001	-		19,096,743		35,566,861	
19	12/31/2021	14,542,924	3,904,584	-		18,447,508		38,056,766	
20	12/31/2022	13,680,105	3,734,217	-		17,414,322		39,920,041	
21	12/31/2023	12,817,286	3,563,850	-		16,381,136		41,890,306	
22	12/31/2024	11,954,467	3,393,483	2,082,456		17,430,407		44,529,811	
23	12/31/2025	11,091,649	3,223,116	6,215,971		20,530,736		47,885,193	
24	12/31/2026	10,228,830	3,052,749	10,179,118		23,460,698		51,399,644	
25	12/31/2027	9,366,011	2,882,383	11,617,513		23,865,907		54,431,913	
26	12/31/2028	8,503,192	2,712,016	11,117,397		22,332,605		55,178,509	
27	12/31/2029	7,640,374	2,541,649	10,617,281		20,799,303		57,858,589	
28	12/31/2030	6,777,555	2,371,282	10,117,164		19,266,001		60,699,474	
29	12/31/2031	5,914,736	2,200,915	9,617,048		17,732,699		63,710,812	
30	12/31/2032	5,051,917	2,030,548	9,116,931		16,199,397		66,902,830	
31	12/31/2033	4,189,098	1,860,181	8,616,815		14,666,095		70,286,369	
32	12/31/2034	3,326,280	1,689,814	8,116,699		13,132,793		73,872,921	
33	12/31/2035	2,463,461	1,519,447	7,616,582		11,599,490		77,674,665	

	J	K
1		
2		
3		Total
4		
5	Total	
6	O&M	
7	84,800	565,309
8	127,832	5,226,561
9	198,348	11,770,141
10	294,577	19,774,813
11	24,380,117	44,706,579
12	26,056,704	46,601,539
13	27,290,868	46,978,148
14	28,578,421	47,430,316
15	29,956,559	48,060,812
16	31,612,174	49,736,723
17	33,594,783	52,503,105
18	35,566,861	54,663,605
19	38,056,766	56,504,274
20	39,920,041	57,334,363
21	41,890,306	58,271,442
22	44,529,811	61,960,218
23	47,885,193	68,415,929
24	51,399,644	74,860,342
25	54,431,913	78,297,820
26	55,178,509	77,511,114
27	57,858,589	78,657,892
28	60,699,474	79,965,474
29	63,710,812	81,443,510
30	66,902,830	83,102,226
31	70,286,369	84,952,464
32	73,872,921	87,005,713
33	77,674,665	89,274,156

	A	B	C	D	E	F	G	H	I
34	12/31/2036	1,600,642	1,349,080	7,116,466		10,066,188		81,704,515	
35	12/31/2037	737,823	1,178,714	6,616,349		8,532,886		85,976,155	
36	2009 PVRR	153,383,226	14,945,173	24,389,184		192,717,582		354,316,774	
37									
38	Cubic Yards	9,542,500	6,072,500	9,542,500		25,157,500		25,157,500	
39									

	J	K
34	81,704,515	91,770,703
35	85,976,155	94,509,041
36	354,316,774	547,034,356
37		
38	25,157,500	25,157,500
39	$/CY (PVRR)	$ 21.74

	A	B	C	D	E	F	G	H
1		**Annual Revenue Requirements - Ghent Landfill - KU Project 30 with Beneficial Reuse -S**						
2								
3		Capital						O
4								
5								
6		Phase 1	Phase 2	Phase 3	Final Cap	Total	Non-Power	Power
7	12/31/2009	480,509	-	-		480,509		84,800
8	12/31/2010	3,553,056	-	-		3,553,056		127,832
9	12/31/2011	7,177,211	-	-		7,177,211		198,348
10	12/31/2012	13,654,069	-	-		13,654,069		294,577
11	12/31/2013	14,678,389	-	-		14,678,389		24,380,117
12	12/31/2014	15,152,993	-	-		15,152,993		26,056,704
13	12/31/2015	14,539,006	-	-		14,539,006		27,290,868
14	12/31/2016	13,883,815	-	-		13,883,815		28,578,421
15	12/31/2017	13,255,915	-	-		13,255,915		29,956,559
16	12/31/2018	12,653,016	-	-		12,653,016		31,612,174
17	12/31/2019	12,016,402	-	-		12,016,402		33,594,783
18	12/31/2020	11,379,788	-	-		11,379,788		35,566,861
19	12/31/2021	10,743,173	-	-		10,743,173		38,056,766
20	12/31/2022	10,106,559	-	-		10,106,559		39,920,041
21	12/31/2023	9,469,945	-	-		9,469,945		41,890,306
22	12/31/2024	8,833,331	-	-		8,833,331		44,529,811
23	12/31/2025	8,196,717	-	-		8,196,717		47,885,193
24	12/31/2026	7,560,103	52,720	-		7,612,823		51,399,644
25	12/31/2027	6,923,489	156,032	-		7,079,520		54,431,913
26	12/31/2028	6,286,875	993,170	-		7,280,044		55,178,509
27	12/31/2029	5,650,260	2,639,761	-		8,290,021		57,858,589
28	12/31/2030	5,013,646	3,691,001	-		8,704,647		60,699,474
29	12/31/2031	4,377,032	3,904,584	-		8,281,616		63,710,812
30	12/31/2032	3,740,418	3,734,217	-		7,474,635		66,902,830
31	12/31/2033	3,103,804	3,563,850	-		6,667,654		70,286,369
32	12/31/2034	2,467,190	3,393,483	-		5,860,673		73,872,921
33	12/31/2035	1,830,576	3,223,116	-		5,053,692		77,674,665

	I	J	K
1	**terling Ventures Mine**		
2			
3	&M		Total
4			
5	Beneficial	Total	
6	Reuse	O&M	
7	-	84,800	565,309
8	-	127,832	3,680,888
9	-	198,348	7,375,559
10	-	294,577	13,948,646
11	(489,556)	23,890,561	38,568,950
12	(495,467)	25,561,237	40,714,230
13	(436,289)	26,854,579	41,393,584
14	(387,511)	28,190,911	42,074,725
15	(348,918)	29,607,640	42,863,556
16	(501,636)	31,110,538	43,763,554
17	(873,325)	32,721,458	44,737,860
18	(1,101,031)	34,465,830	45,845,618
19	(1,114,736)	36,942,030	47,685,203
20	(1,025,754)	38,894,287	49,000,846
21	(931,433)	40,958,872	50,428,818
22	(1,382,478)	43,147,333	51,980,664
23	(2,392,499)	45,492,694	53,689,411
24	(3,382,211)	48,017,432	55,630,256
25	(3,728,255)	50,703,658	57,783,179
26	(3,378,832)	51,799,676	59,079,720
27	(2,798,637)	55,059,952	63,349,973
28	(2,349,913)	58,349,561	67,054,208
29	(2,101,930)	61,608,882	69,890,498
30	(1,942,577)	64,960,253	72,434,888
31	(1,773,662)	68,512,707	75,180,361
32	(1,594,613)	72,278,307	78,138,980
33	(1,404,821)	76,269,844	81,323,536

	A	B	C	D	E	F	G	H
34	12/31/2036	1,193,961	3,052,749	-		4,246,711		81,704,515
35	12/31/2037	557,347	2,882,383	-		3,439,730		85,976,155
36	2009 PVRR	111,212,472	5,355,077	-		116,567,550		354,316,774
37								
38	Cubic Yards	17,350,000	7,807,500			25,157,500		25,157,500
39								
40				Option 30 with				
41	CASE		Option 30	Benefical Reuse				
42	PVRR							
43	Capital		$ 192,717,582	$ 116,567,550				
44	O&M		354,316,774	343,867,798				
45	Total		$ 547,034,356	$ 460,435,348				
46	Delta to Least Cost		**$ 86,599,008**	Least Cost				
47								
48	Unit Cost (2009 PVRR $/CY)		$ 21.74	$ 18.30				

	I	J	K
34	(1,203,641)	80,500,873	84,747,584
35	(990,391)	84,985,764	88,425,494
36	(10,448,976)	343,867,798	460,435,348
37			
38		25,157,500	25,157,500
39		$/CY (PVRR)	$ 18.30
40			
41			
42			
43			
44			
45			
46			
47			
48			

	A	B	C	D	E	F	G	H
1	NOTE-This Table	**Annual Revenue Requirements - Ghent Landfill - KU Project 30 with Beneficial Reuse -Sterling Venture**						
2	Requires $9.00							
3	Price Inserted	Capital					O	
4	into cell D16 of							
5	PVRR Analysis							
6		Phase 1	Phase 2	Phase 3	Final Cap	Total	Non-Power	Power
7	12/31/2009	480,509	-	-		480,509		84,800
8	12/31/2010	3,553,056	-	-		3,553,056		127,832
9	12/31/2011	7,177,211	-	-		7,177,211		198,348
10	12/31/2012	13,654,069	-	-		13,654,069		294,577
11	12/31/2013	14,678,389	-	-		14,678,389		24,380,117
12	12/31/2014	15,152,993	-	-		15,152,993		26,056,704
13	12/31/2015	14,539,006	-	-		14,539,006		27,290,868
14	12/31/2016	13,883,815	-	-		13,883,815		28,578,421
15	12/31/2017	13,255,915	-	-		13,255,915		29,956,559
16	12/31/2018	12,653,016	-	-		12,653,016		31,612,174
17	12/31/2019	12,016,402	-	-		12,016,402		33,594,783
18	12/31/2020	11,379,788	-	-		11,379,788		35,566,861
19	12/31/2021	10,743,173	-	-		10,743,173		38,056,766
20	12/31/2022	10,106,559	-	-		10,106,559		39,920,041
21	12/31/2023	9,469,945	-	-		9,469,945		41,890,306
22	12/31/2024	8,833,331	-	-		8,833,331		44,529,811
23	12/31/2025	8,196,717	-	-		8,196,717		47,885,193
24	12/31/2026	7,560,103	52,720	-		7,612,823		51,399,644
25	12/31/2027	6,923,489	156,032	-		7,079,520		54,431,913
26	12/31/2028	6,286,875	993,170	-		7,280,044		55,178,509
27	12/31/2029	5,650,260	2,639,761	-		8,290,021		57,858,589
28	12/31/2030	5,013,646	3,691,001	-		8,704,647		60,699,474
29	12/31/2031	4,377,032	3,904,584	-		8,281,616		63,710,812
30	12/31/2032	3,740,418	3,734,217	-		7,474,635		66,902,830
31	12/31/2033	3,103,804	3,563,850	-		6,667,654		70,286,369
32	12/31/2034	2,467,190	3,393,483	-		5,860,673		73,872,921
33	12/31/2035	1,830,576	3,223,116	-		5,053,692		77,674,665

	I	J	K
1	**s Mine With Scrubber Stone Backhaul**		
2			
3	&M		Total
4			
5	Beneficial	Total	
6	Reuse	O&M	
7	-	84,800	565,309
8	-	127,832	3,680,888
9	-	198,348	7,375,559
10	-	294,577	13,948,646
11	(489,556)	23,890,561	38,568,950
12	(495,467)	25,561,237	40,714,230
13	(436,289)	26,854,579	41,393,584
14	(387,511)	28,190,911	42,074,725
15	(348,918)	29,607,640	42,863,556
16	(501,636)	31,110,538	43,763,554
17	(873,325)	32,721,458	44,737,860
18	(1,101,031)	34,465,830	45,845,618
19	(1,114,736)	36,942,030	47,685,203
20	(1,025,754)	38,894,287	49,000,846
21	(931,433)	40,958,872	50,428,818
22	(1,382,478)	43,147,333	51,980,664
23	(2,392,499)	45,492,694	53,689,411
24	(3,382,211)	48,017,432	55,630,256
25	(3,728,255)	50,703,658	57,783,179
26	(3,378,832)	51,799,676	59,079,720
27	(2,798,637)	55,059,952	63,349,973
28	(2,349,913)	58,349,561	67,054,208
29	(2,101,930)	61,608,882	69,890,498
30	(1,942,577)	64,960,253	72,434,888
31	(1,773,662)	68,512,707	75,180,361
32	(1,594,613)	72,278,307	78,138,980
33	(1,404,821)	76,269,844	81,323,536

	A	B	C	D	E	F	G	H
34	12/31/2036	1,193,961	3,052,749	-		4,246,711		81,704,515
35	12/31/2037	557,347	2,882,383	-		3,439,730		85,976,155
36	2009 PVRR	111,212,472	5,355,077	-		116,567,550		354,316,774
37								
38	Cubic Yards	17,350,000	7,807,500			25,157,500		25,157,500
39								
40				Option 30 with				
41	CASE		Option 30	Benefical Reuse				
42	PVRR							
43	Capital		$ 192,717,582	$ 116,567,550				
44	O&M		354,316,774	343,867,798				
45	Total		$ 547,034,356	$ 460,435,348				
46	Delta to Least Cost		**$ 86,599,008**	Least Cost				
47								
48	Unit Cost (2009 PVRR $/CY)		$ 21.74	$ 18.30				

	I	J	K
34	(1,203,641)	80,500,873	84,747,584
35	(990,391)	84,985,764	88,425,494
36	(10,448,976)	343,867,798	460,435,348
37			
38		25,157,500	25,157,500
39		$/CY (PVRR)	$ 18.30
40			
41			
42			
43			
44			
45			
46			
47			
48			

	A	B	C	D	E	F	G	H	I
1		Dry	Gypsum	Gypsum	Operation and	Phase II	Phase III	Total	Hauling
2		Gypsum	Fines	Dewatering	Maintenance	Construction	Construction	Capital Cost	Gypsum to
3		Handling	Project	Facility	Dry Gypsum				Landfill
4		System		Earthwork	Handling				
5					System				
6									
7	12/31/2010	$ 7,790,000	$ 6,300,000	$ -	$ -	$ -	$ -	$ 14,090,000	$ -
8	12/31/2011	$ 15,960,000	$ 6,300,000	$ 371,000	$ -	$ -	$ -	$ 22,631,000	$ -
9	12/30/2012	$ 13,050,000	$ -	$ -	$ -	$ -	$ -	$ 13,050,000	$ -
10	12/30/2013	$ -	$ -	$ -	$ 682,495	$ -	$ -	$ 682,495	$ 8,887,032
11	12/30/2014	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 9,420,254
12	12/30/2015	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 9,985,469
13	12/29/2016	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 10,584,598
14	12/29/2017	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 11,219,674
15	12/29/2018	$ -	$ -	$ -	$ -	$ 40,000,000	$ -	$ 40,000,000	$ 11,892,854
16	12/29/2019	$ -	$ -	$ -	$ -	$ 20,000,000	$ -	$ 20,000,000	$ 12,606,426
17	12/28/2020	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 13,362,811
18	12/28/2021	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 14,164,580
19	12/28/2022	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 15,014,455
20	12/28/2023	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 15,915,322
21	12/27/2024	$ -	$ -	$ -	$ -	$ -	$ 40,000,000	$ 40,000,000	$ 16,870,241
22	12/27/2025	$ -	$ -	$ -	$ -	$ -	$ 40,000,000	$ 40,000,000	$ 17,882,456
23	12/27/2026	$ -	$ -	$ -	$ -	$ -	$ 20,000,000	$ 20,000,000	$ 18,955,403
24	12/27/2027	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 20,092,727
25	12/26/2028	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 21,298,291
26	12/26/2029	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 22,576,188
27	12/26/2030	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 23,930,760
28	12/26/2031	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 25,366,605
29	12/25/2032	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 26,888,602
30	12/25/2033	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 28,501,918
31	12/25/2034	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 30,212,033
32	12/25/2035	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 32,024,755

	J	K	L	M	N	O
1	Total	Discount	Haul	Phase III		Discount
2	Cost Gypsum	Rate	Gypsum	Construction		Rate
3	to Ghent	6.70%	to Sterling			6.70%
4	Landfill					
5						
6		PVRR				PVRR
7	$ 14,090,000	$ 289,828,563	$ -	$ -	$ -	$ 252,258,836
8	$ 22,631,000		$ -	$ -	$ -	
9	$ 13,050,000		$ -	$ -	$ -	
10	$ 9,569,527		$ 11,236,000	$ -	$ 11,236,000	
11	$ 9,420,254		$ 11,910,160	$ -	$ 11,910,160	
12	$ 9,985,469		$ 12,624,770	$ -	$ 12,624,770	
13	$ 10,584,598		$ 13,382,256	$ -	$ 13,382,256	
14	$ 11,219,674		$ 14,185,191	$ -	$ 14,185,191	
15	$ 51,892,854		$ 15,036,303	$ -	$ 15,036,303	
16	$ 32,606,426		$ 15,938,481	$ -	$ 15,938,481	
17	$ 13,362,811		$ 16,894,790	$ -	$ 16,894,790	
18	$ 14,164,580		$ 17,908,477	$ -	$ 17,908,477	
19	$ 15,014,455		$ 18,982,986	$ -	$ 18,982,986	
20	$ 15,915,322		$ 20,121,965	$ -	$ 20,121,965	
21	$ 56,870,241		$ 21,329,283	$ 40,000,000	$ 61,329,283	
22	$ 57,882,456		$ 22,609,040	$ 40,000,000	$ 62,609,040	
23	$ 38,955,403		$ 23,965,582	$ 20,000,000	$ 43,965,582	
24	$ 20,092,727		$ 25,403,517	$ -	$ 25,403,517	
25	$ 21,298,291		$ 26,927,728	$ -	$ 26,927,728	
26	$ 22,576,188		$ 28,543,392	$ -	$ 28,543,392	
27	$ 23,930,760		$ 30,255,995	$ -	$ 30,255,995	
28	$ 25,366,605		$ 32,071,355	$ -	$ 32,071,355	
29	$ 26,888,602		$ 33,995,636	$ -	$ 33,995,636	
30	$ 28,501,918		$ 36,035,374	$ -	$ 36,035,374	
31	$ 30,212,033		$ 38,197,497	$ -	$ 38,197,497	
32	$ 32,024,755		$ 40,489,346	$ -	$ 40,489,346	

	A	B	C	D	E	F	G	H	I
33	12/24/2036	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 33,946,240
34	12/24/2037	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 35,983,014
35		$ 36,800,000	$ 12,600,000	$ 371,000	$ 682,495	$ 60,000,000	$ 100,000,000	$ 210,453,495	$ 487,582,709
36					$ 50,453,495		$ 160,000,000		

	J	K	L	M	N	O
33	$ 33,946,240		$ 42,918,707	$ -	$ 42,918,707	
34	$ 35,983,014		$ 45,493,830	$ -	$ 45,493,830	
35	$ 698,036,204		$ 616,457,657	$ 100,000,000	$ 716,457,657	
36						

	A	B	C	D
1	PHASE 1 ONLY			
2	Gypsum Disposal at Sterling Materials			
3				
4	Revenue Requirement			
5	Eligible Plant			
6	Less Gypsum Plant Requirements/Phase Delays			
7	Revised Eligible Plant			
8	Less Accumulated Depreciation			
9	Less Deferred Tax Balance			
10	Environmental Compliance Rate Base			
11	Rate of Return			
12		Assumed	Tons (1.155)	1,000,000
13		86.7500%	Cubic yards	867,500
14	Operating Expenses			
15	less Gypsum to On-site Landfill			
16	Gypsum to Sterling			**$ 10.50**
17	Net Operating			
18	Annual Depreciation			
19	Annual Property Tax Expense			
20	Total OE			
21				
22	Total E(m) Gypsum to Sterling			
23	Total E(m) - Project 30 (See below)			
24				
25	**Difference**		**PVRR**	**7.81%**
26	Date			
27				
28	Revenue Requirments Summary			
29	2009 Amended Plan			
30	Project 30		Ghent Landfill Phase I	
31	See Exhibit B			
32				

	E	F	G	H	I	J	K	L	M
1									
2		2009	2010	2011	2012	2013	2014	2015	2016
3									
4									
5		$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 202,578,976
6		$ -	$ (14,090,000)	$ (40,060,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)
7		$ 4,321,671	$ 32,388,846	$ 65,425,803	$ 124,467,356	$ 138,023,918	$ 148,831,953	$ 149,468,976	$ 149,468,976
8						$ (3,690,414)	$ (7,842,826)	$ (12,013,010)	$ (16,183,194)
9						$ (528,683)	$ (2,857,926)	$ (4,921,730)	$ (6,724,117)
10		$ 4,321,671	$ 32,388,846	$ 65,425,803	$ 124,467,356	$ 133,804,821	$ 138,131,202	$ 132,534,236	$ 126,561,665
11		11.1%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
12		$ 480,509	$ 3,553,056	$ 7,177,211	$ 13,654,069	$ 14,678,389	$ 15,152,993	$ 14,539,006	$ 13,883,815
13									
14		$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244
15						$ (9,569,527)	$ (10,143,699)	$ (10,752,321)	$ (11,397,460)
16						$ 10,500,000	$ 11,130,000	$ 11,797,800	$ 12,505,668
17		$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,933,781	$ 21,129,808	$ 22,397,596	$ 23,741,452
18						$ 3,690,414	$ 4,152,411	$ 4,170,184	$ 4,170,185
19			$ 6,483	$ 69,718	$ 158,229	$ 266,366	$ 279,017	$ 286,798	$ 279,274
20		$ 84,800	$ 127,832	$ 198,348	$ 294,577	$ 23,890,561	$ 25,561,237	$ 26,854,579	$ 28,190,911
21									
22	$ 452,873,199	$ 565,309	$ 3,680,888	$ 7,375,559	$ 13,948,646	$ 38,568,950	$ 40,714,230	$ 41,393,584	$ 42,074,725
23	$ 493,914,773	$ 565,309	$ 5,226,225	$ 11,769,378	$ 19,773,528	$ 44,705,239	$ 46,600,208	$ 46,976,843	$ 47,458,553
24									
25	**$ (41,041,573)**	$ -	$ (1,545,337)	$ (4,393,819)	$ (5,824,882)	$ (6,136,289)	$ (5,885,978)	$ (5,583,259)	$ (5,383,828)
26		12/31/2009	12/31/2010	12/31/2011	12/31/2012	12/31/2013	12/31/2014	12/31/2015	12/31/2016
27									
28									
29									
30									
31		2009	2010	2011	2012	2013	2014	2015	2016
32									**Start Phase II**

	N	O	P	Q	R	S	T	U
1								
2	2017	2018	2019	2020	2021	2022	2023	2024
3								
4								
5	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976
6	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)
7	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976
8	$ (20,353,378)	$ (24,523,563)	$ (28,693,747)	$ (32,863,931)	$ (37,034,115)	$ (41,204,299)	$ (45,374,483)	$ (49,544,667)
9	$ (8,277,719)	$ (9,603,427)	$ (11,236,471)	$ (12,869,515)	$ (14,502,559)	$ (16,135,603)	$ (17,768,648)	$ (19,401,692)
10	$ 120,837,879	$ 115,341,986	$ 109,538,758	$ 103,735,530	$ 97,932,302	$ 92,129,073	$ 86,325,845	$ 80,522,617
11	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
12	$ 13,255,915	$ 12,653,016	$ 12,016,402	$ 11,379,788	$ 10,743,173	$ 10,106,559	$ 9,469,945	$ 8,833,331
13				$ 27,051	$ 661,940			
14	$ 23,991,239	$ 25,430,713	$ 26,956,556	**$ 28,601,000**	**$ 30,979,000**	$ 32,837,740	$ 34,808,004	$ 36,896,485
15	$ (12,081,307)	$ (12,806,186)	$ (13,574,557)	$ (14,389,030)	$ (15,252,372)	$ (16,167,515)	$ (17,137,565)	$ (18,165,819)
16	$ 13,256,008	$ 14,051,369	$ 14,894,451	$ 15,788,118	$ 16,735,405	$ 17,739,529	$ 18,803,901	$ 19,932,135
17	$ 25,165,940	$ 26,675,896	$ 28,276,450	$ 30,000,087	$ 32,462,033	$ 34,409,755	$ 36,474,340	$ 38,662,800
18	$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,170,184
19	$ 270,848	$ 262,514	$ 262,514	$ 262,514	$ 262,514	$ 262,514	$ 262,514	$ 262,514
20	$ 29,606,972	$ 31,108,594	$ 32,709,148	$ 34,432,785	$ 36,894,731	$ 38,842,453	$ 40,907,038	$ 43,095,498
21								
22	$ 42,862,887	$ 43,761,610	$ 44,725,549	$ 45,812,573	$ 47,637,904	$ 48,949,012	$ 50,376,983	$ 51,928,829
23	$ 48,044,547	$ 48,653,648	$ 49,139,584	$ 49,921,210	$ 51,436,391	$ 52,432,312	$ 53,539,758	$ 54,765,419
24								
25	$ (5,181,660)	$ (4,892,038)	$ (4,414,035)	$ (4,108,637)	$ (3,798,487)	$ (3,483,300)	$ (3,162,775)	$ (2,836,590)
26	12/31/2017	12/31/2018	12/31/2019	12/31/2020	12/31/2021	12/31/2022	12/31/2023	12/31/2024
27								
28								
29								
30								
31	2017	2018	2019	2020	2021	2022	2023	2024
32								**Start Phase III**

	V	W	X	Y	Z	AA	AB	AC
1								
2	2025	2026	2027	2028	2029	2030	2031	2032
3		**Start Phase II**						
4								
5	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976
6	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)
7	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976
8	$ (53,714,851)	$ (57,885,036)	$ (62,055,220)	$ (66,225,404)	$ (70,395,588)	$ (74,565,772)	$ (78,735,956)	$ (82,906,140)
9	$ (21,034,736)	$ (22,667,780)	$ (24,300,824)	$ (25,933,868)	$ (27,566,912)	$ (29,199,956)	$ (30,833,000)	$ (32,466,045)
10	$ 74,719,389	$ 68,916,161	$ 63,112,932	$ 57,309,704	$ 51,506,476	$ 45,703,248	$ 39,900,019	$ 34,096,791
11	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
12	$ 8,196,717	$ 7,560,103	$ 6,923,489	$ 6,286,875	$ 5,650,260	$ 5,013,646	$ 4,377,032	$ 3,740,418
13				$ (1,912,962)				
14	$ 39,110,274	$ 41,456,890	$ 43,944,304	**$ 44,668,000**	$ 47,348,080	$ 50,188,965	$ 53,200,303	$ 56,392,321
15	$ (19,255,768)	$ (20,411,115)	$ (21,635,781)	$ (22,933,928)	$ (24,309,964)	$ (25,768,562)	$ (27,314,676)	$ (28,953,556)
16	$ 21,128,063	$ 22,395,747	$ 23,739,492	$ 25,163,861	$ 26,673,693	$ 28,274,114	$ 29,970,561	$ 31,768,795
17	$ 40,982,568	$ 43,441,522	$ 46,048,014	$ 46,897,933	$ 49,711,809	$ 52,694,517	$ 55,856,188	$ 59,207,559
18	$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,170,184
19	$ 262,514	$ 262,514	$ 262,514	$ 262,514	$ 262,514	$ 262,514	$ 262,514	$ 262,514
20	$ 45,415,266	$ 47,874,220	$ 50,480,712	$ 51,330,631	$ 54,144,507	$ 57,127,215	$ 60,288,886	$ 63,640,258
21								
22	$ 53,611,983	$ 55,434,323	$ 57,404,200	$ 57,617,505	$ 59,794,767	$ 62,140,862	$ 64,665,918	$ 67,380,676
23	$ 56,116,389	$ 57,600,187	$ 59,224,782	$ 59,085,659	$ 60,902,921	$ 62,880,987	$ 65,029,506	$ 67,358,705
24								
25	$ (2,504,406)	$ (2,165,864)	$ (1,820,581)	$ (1,468,154)	$ (1,108,153)	$ (740,125)	$ (363,587)	$ 21,971
26	12/31/2025	12/31/2026	12/31/2027	12/31/2028	12/31/2029	12/31/2030	12/31/2031	12/31/2032
27								
28								
29								
30								
31	2025	2026	2027	2028	2029	2030	2031	2032
32								

	AD	AE	AF	AG	AH	AI
1						
2	2033	2034	2035	2036	2037	
3						
4						
5	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	
6	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	
7	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976	
8	$ (87,076,324)	$ (91,246,509)	$ (95,416,693)	$ (99,586,877)	$ (103,757,061)	
9	$ (34,099,089)	$ (35,732,133)	$ (37,365,177)	$ (38,998,221)	$ (40,631,265)	
10	$ 28,293,563	$ 22,490,335	$ 16,687,107	$ 10,883,878	$ 5,080,650	
11	10.97%	10.97%	10.97%	10.97%	10.97%	
12	$ 3,103,804	$ 2,467,190	$ 1,830,576	$ 1,193,961	$ 557,347	$ 228,478,594
13						
14	$ 59,775,860	$ 63,362,412	$ 67,164,156	$ 71,194,006	$ 75,465,646	
15	$ (30,690,769)	$ (32,532,216)	$ (34,484,149)	$ (36,553,198)	$ (38,746,389)	
16	$ 33,674,922	$ 35,695,418	$ 37,837,143	$ 40,107,371	$ 42,513,814	
17	$ 62,760,013	$ 66,525,614	$ 70,517,151	$ 74,748,180	$ 79,233,071	
18	$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,170,184	
19	$ 262,514	$ 262,514	$ 262,514	$ 262,514	$ 262,514	
20	$ 67,192,711	$ 70,958,312	$ 74,949,849	$ 79,180,878	$ 83,665,769	
21						
22	$ 70,296,515	$ 73,425,502	$ 76,780,424	$ 80,374,839	$ 84,223,116	$ 1,427,527,870
23	$ 69,879,426	$ 72,603,158	$ 75,542,084	$ 78,709,115	$ 82,117,936	$ 1,498,059,007
24						
25	$ 417,089	$ 822,343	$ 1,238,340	$ 1,665,724	$ 2,105,179	**$ (70,531,137)**
26	12/31/2033	12/31/2034	12/31/2035	12/31/2036	12/31/2037	
27						$ (70,531,137)
28						
29						
30						
31	2033	2034	2035	2036	2037	
32						

	A	B	C	D
33	Revenue Requirement			
34	Eligible Plant			
35	Less Gypsum Plant Requirements/Phase Delays			
36	Revised Eligible Plant			
37	Less Accumulated Depreciation			
38	Less Deferred Tax Balance			
39	Environmental Compliance Rate Base			
40	Rate of Return			
41				
42				
43	Operating Expenses			
44	less Gypsum to On-site Landfill			
45	Gypsum to Sterling			
46	Net Operating			
47	Annual Depreciation			
48	Annual Property Tax Expense			
49	Total OE			
50				
51	Total E(m) Gypsum to On-site Landfill as Calculated			
52	Total E(m) Gypsum to On-site Landfill per KU			
53				
54	Calculation Check Difference			
55				
56				
57	Site E/F	Hauling cost of Ash 2.25 mile round trip		
58		Haul Road Maintenance		
59	Total			
60	Reduce by 50% for Site M			
61	**Difference**		**PVRR**	**7.81%**

	E	F	G	H	I	J	K	L	M
33									
34		$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 202,578,976
35		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
36		$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 202,578,976
37						$ (5,110,443)	$ (10,744,623)	$ (16,396,576)	$ (22,048,530)
38						$ (732,114)	$ (3,915,341)	$ (6,717,677)	$ (9,161,164)
39		$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 185,291,361	$ 187,281,989	$ 179,464,723	$ 171,369,282
40		11.1%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
41		$ 480,509	$ 5,098,729	$ 11,571,793	$ 19,480,236	$ 20,326,462	$ 20,544,834	$ 19,687,280	$ 18,799,210
42									
43		$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244
44						$ -	$ -	$ -	$ -
45						$ -	$ -	$ -	$ -
46		$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244
47						$ 5,110,443	$ 5,634,180	$ 5,651,953	$ 5,651,954
48			$ 6,483	$ 69,718	$ 158,229	$ 266,366	$ 279,017	$ 286,798	$ 279,274
49		$ 84,800	$ 127,832	$ 198,348	$ 294,577	$ 24,380,117	$ 26,056,704	$ 27,290,868	$ 28,564,471
50									
51		$ 565,309	$ 5,226,561	$ 11,770,141	$ 19,774,813	$ 44,706,579	$ 46,601,539	$ 46,978,148	$ 47,363,682
52		$ 565,309	$ 5,226,225	$ 11,769,378	$ 19,773,528	$ 44,705,239	$ 46,600,208	$ 46,976,843	$ 47,458,553
53									
54		$ -	$ 336	$ 763	$ 1,285	$ 1,340	$ 1,331	$ 1,305	$ (94,871)
55									
56									
57						$ 2,822,723	$ 2,992,086	$ 3,171,612	$ 3,361,908
58						$ 53,529	$ 56,741	$ 60,145	$ 63,754
59						$ 2,876,252	$ 3,048,827	$ 3,231,757	$ 3,425,662
60		$ -	$ -	$ -	$ -	$ 1,438,126	$ 1,524,414	$ 1,615,878	$ 1,712,831
61	**$ (21,865,903)**								

	N	O	P	Q	R	S	T	U
33								
34	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976
35	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
36	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976
37	$ (27,700,483)	$ (33,352,436)	$ (39,004,389)	$ (44,656,342)	$ (50,308,295)	$ (55,960,248)	$ (61,612,201)	$ (67,264,154)
38	$ (11,265,786)	$ (13,060,814)	$ (15,274,119)	$ (17,487,423)	$ (19,700,728)	$ (21,914,033)	$ (24,127,338)	$ (26,340,643)
39	$ 163,612,707	$ 156,165,726	$ 148,300,469	$ 140,435,211	$ 132,569,953	$ 124,704,695	$ 116,839,437	$ 108,974,180
40	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
41	$ 17,948,314	$ 17,131,380	$ 16,268,561	$ 15,405,743	$ 14,542,924	$ 13,680,105	$ 12,817,286	$ 11,954,467
42				$ 27,051	$ 661,940			
43	$ 23,991,239	$ 25,430,713	$ 26,956,556	**$ 28,601,000**	**$ 30,979,000**	$ 32,837,740	$ 34,808,004	$ 36,896,485
44	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
45	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
46	$ 23,991,239	$ 25,430,713	$ 26,956,556	$ 28,601,000	$ 30,979,000	$ 32,837,740	$ 34,808,004	$ 36,896,485
47	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953
48	$ 270,848	$ 262,514	$ 262,514	$ 262,514	$ 262,514	$ 262,514	$ 262,514	$ 262,514
49	$ 29,914,040	$ 31,345,180	$ 32,871,023	$ 34,515,467	$ 36,893,467	$ 38,752,207	$ 40,722,471	$ 42,810,952
50								
51	$ 47,862,354	$ 48,476,560	$ 49,139,584	$ 49,921,210	$ 51,436,391	$ 52,432,312	$ 53,539,758	$ 54,765,419
52	$ 48,044,547	$ 48,653,648						
53								
54	$ (182,193)	$ (177,088)						
55								
56								
57	$ 3,563,623	$ 3,777,440	$ 4,004,087	$ 4,244,332	$ 4,498,992	$ 4,768,931	$ 5,055,067	$ 5,358,371
58	$ 67,579	$ 71,634	$ 75,932	$ 80,488	$ 85,317	$ 90,436	$ 95,862	$ 101,614
59	$ 3,631,202	$ 3,849,074	$ 4,080,018	$ 4,324,820	$ 4,584,309	$ 4,859,367	$ 5,150,929	$ 5,459,985
60	$ 1,815,601	$ 1,924,537	$ 2,040,009	$ 2,162,410	$ 2,292,154	$ 2,429,684	$ 2,575,465	$ 2,729,993
61								

	V	W	X	Y	Z	AA	AB	AC
33								
34	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976
35	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
36	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976
37	$ (72,916,107)	$ (78,568,060)	$ (84,220,013)	$ (89,871,966)	$ (95,523,919)	$ (101,175,872)	$ (106,827,825)	$ (112,479,778)
38	$ (28,553,947)	$ (30,767,252)	$ (32,980,557)	$ (35,193,862)	$ (37,407,167)	$ (39,620,471)	$ (41,833,776)	$ (44,047,081)
39	$ 101,108,922	$ 93,243,664	$ 85,378,406	$ 77,513,148	$ 69,647,890	$ 61,782,633	$ 53,917,375	$ 46,052,117
40	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
41	$ 11,091,649	$ 10,228,830	$ 9,366,011	$ 8,503,192	$ 7,640,374	$ 6,777,555	$ 5,914,736	$ 5,051,917
42				$ (1,912,962)				
43	$ 39,110,274	$ 41,456,890	$ 43,944,304	**$ 44,668,000**	$ 47,348,080	$ 50,188,965	$ 53,200,303	$ 56,392,321
44	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
45	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
46	$ 39,110,274	$ 41,456,890	$ 43,944,304	$ 44,668,000	$ 47,348,080	$ 50,188,965	$ 53,200,303	$ 56,392,321
47	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953
48	$ 262,514	$ 262,514	$ 262,514	$ 262,514	$ 262,514	$ 262,514	$ 262,514	$ 262,514
49	$ 45,024,741	$ 47,371,357	$ 49,858,771	$ 50,582,467	$ 53,262,547	$ 56,103,432	$ 59,114,770	$ 62,306,788
50								
51	$ 56,116,389	$ 57,600,187	$ 59,224,782	$ 59,085,659	$ 60,902,921	$ 62,880,987	$ 65,029,506	$ 67,358,705
52								
53								
54								
55								
56								
57	$ 5,679,873	$ 6,020,666	$ 6,381,906	$ 6,764,820	$ 7,170,709	$ 7,600,952	$ 8,057,009	$ 8,540,429
58	$ 107,711	$ 114,174	$ 121,024	$ 128,285	$ 135,982	$ 144,141	$ 152,790	$ 161,957
59	$ 5,787,584	$ 6,134,839	$ 6,502,930	$ 6,893,105	$ 7,306,692	$ 7,745,093	$ 8,209,799	$ 8,702,387
60	$ 2,893,792	$ 3,067,420	$ 3,251,465	$ 3,446,553	$ 3,653,346	$ 3,872,547	$ 4,104,899	$ 4,351,193
61								

	AD	AE	AF	AG	AH	AI
33						$ -
34	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	
35	$ -	$ -	$ -	$ -	$ -	
36	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	
37	$ (118,131,731)	$ (123,783,684)	$ (129,435,637)	$ (135,087,590)	$ (140,739,543)	
38	$ (46,260,386)	$ (48,473,691)	$ (50,686,995)	$ (52,900,300)	$ (55,113,605)	
39	$ 38,186,859	$ 30,321,601	$ 22,456,344	$ 14,591,086	$ 6,725,828	
40	10.97%	10.97%	10.97%	10.97%	10.97%	
41	$ 4,189,098	$ 3,326,280	$ 2,463,461	$ 1,600,642	$ 737,823	$ 312,629,403
42						
43	$ 59,775,860	$ 63,362,412	$ 67,164,156	$ 71,194,006	$ 75,465,646	
44	$ -	$ -	$ -	$ -	$ -	
45	$ -	$ -	$ -	$ -	$ -	
46	$ 59,775,860	$ 63,362,412	$ 67,164,156	$ 71,194,006	$ 75,465,646	
47	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953	
48	$ 262,514	$ 262,514	$ 262,514	$ 262,514	$ 262,514	
49	$ 65,690,327	$ 69,276,879	$ 73,078,623	$ 77,108,473	$ 81,380,113	
50						
51	$ 69,879,426	$ 72,603,158	$ 75,542,084	$ 78,709,115	$ 82,117,936	
52						
53						
54						
55						
56						
57	$ 9,052,855	$ 9,596,026	$ 10,171,788	$ 10,782,095	$ 11,429,021	
58	$ 171,675	$ 181,975	$ 192,894	$ 204,467	$ 216,735	
59	$ 9,224,530	$ 9,778,002	$ 10,364,682	$ 10,986,563	$ 11,645,756	
60	$ 4,612,265	$ 4,889,001	$ 5,182,341	$ 5,493,281	$ 5,822,878	
61						

Cell: D16
Comment: John Walters:
Insert $9.00 for Limestone Backhaul calculation

	A	B	C	D
1	Revenue Requirments Summary			
2	Gypsum Disposal at Sterling Materials			
3				
4	Revenue Requirement			
5	Eligible Plant			
6	Less Gypsum Plant Requirements			
7	Revised Eligible Plant			
8	Less Accumulated Depreciation			
9	Less Deferred Tax Balance			
10	Environmental Compliance Rate Base			
11	Rate of Return			
12		Assumed	Tons (1.155)	1,000,000
13		86.7500%	Cubic yards	867,500
14	Operating Expenses			
15	less Gypsum to On-site Landfill			
16	Gypsum to Sterling			**$ 10.50**
17	Net Operating			
18	Annual Depreciation			
19	Annual Property Tax Expense			
20	Total OE			
21				
22	Total E(m) Gypsum to Sterling			
23	Total E(m) - Project 30 (See below)			
24				
25	**Difference**		**PVRR**	**7.81%**
26	Date			
27				
28	Revenue Requirments Summary			
29	2009 Amended Plan			
30	Project 30		Ghent Landfill Phase I	
31	See Exhibit B			
32				
33	Revenue Requirement			

	E	F	G	H	I	J	K	L
1								
2		2009	2010	2011	2012	2013	2014	2015
3								
4								
5		$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976
6		$ -	$ (14,090,000)	$ (40,060,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)
7		$ 4,321,671	$ 32,388,846	$ 65,425,803	$ 124,467,356	$ 138,023,918	$ 148,831,953	$ 149,468,976
8						$ (3,690,414)	$ (7,842,826)	$ (12,013,010)
9						$ (528,683)	$ (2,857,926)	$ (4,921,730)
10		$ 4,321,671	$ 32,388,846	$ 65,425,803	$ 124,467,356	$ 133,804,821	$ 138,131,202	$ 132,534,236
11		11.1%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
12		$ 480,509	$ 3,553,056	$ 7,177,211	$ 13,654,069	$ 14,678,389	$ 15,152,993	$ 14,539,006
13								
14		$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117
15						$ (9,569,527)	$ (10,143,699)	$ (10,752,321)
16						$ 10,500,000	$ 11,130,000	$ 11,797,800
17		$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,933,781	$ 21,129,808	$ 22,397,596
18						$ 3,690,414	$ 4,152,411	$ 4,170,184
19			$ 6,483	$ 69,718	$ 158,229	$ 266,366	$ 279,017	$ 286,798
20		$ 84,800	$ 127,832	$ 198,348	$ 294,577	$ 23,890,561	$ 25,561,237	$ 26,854,579
21								
22	$ 460,107,063	$ 565,309	$ 3,680,888	$ 7,375,559	$ 13,948,646	$ 38,568,950	$ 40,714,230	$ 41,393,584
23	$ 513,750,912	$ 565,309	$ 5,226,225	$ 11,769,378	$ 19,773,528	$ 44,705,239	$ 46,600,208	$ 46,976,843
24								
25	**$ (53,643,850)**	$ -	$ (1,545,337)	$ (4,393,819)	$ (5,824,882)	$ (6,136,289)	$ (5,885,978)	$ (5,583,259)
26		12/31/2009	12/31/2010	12/31/2011	12/31/2012	12/31/2013	12/31/2014	12/31/2015
27								
28								
29								
30								
31		2009	2010	2011	2012	2013	2014	2015
32								
33								

	M	N	O	P	Q	R	S	T
1								
2	2016	2017	2018	2019	2020	2021	2022	2023
3								
4								
5	$ 203,078,976	$ 204,078,976	$ 212,078,976	$ 228,078,976	$ 239,078,976	$ 242,578,976	$ 242,578,976	$ 242,578,976
6	$ (53,610,000)	$ (54,610,000)	$ (62,610,000)	$ (78,610,000)	$ (89,610,000)	$ (93,110,000)	$ (93,110,000)	$ (93,110,000)
7	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976
8	$ (16,183,194)	$ (20,353,378)	$ (24,523,563)	$ (28,693,747)	$ (32,863,931)	$ (37,034,115)	$ (41,204,299)	$ (45,374,483)
9	$ (6,724,117)	$ (8,277,719)	$ (9,603,427)	$ (11,236,471)	$ (12,869,515)	$ (14,502,559)	$ (16,135,603)	$ (17,768,648)
10	$ 126,561,665	$ 120,837,879	$ 115,341,986	$ 109,538,758	$ 103,735,530	$ 97,932,302	$ 92,129,073	$ 86,325,845
11	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
12	$ 13,883,815	$ 13,255,915	$ 12,653,016	$ 12,016,402	$ 11,379,788	$ 10,743,173	$ 10,106,559	$ 9,469,945
13					$ 27,051	$ 661,940		
14	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,556	**$ 28,601,000**	**$ 30,979,000**	$ 32,837,740	$ 34,808,004
15	$ (11,397,460)	$ (12,081,307)	$ (12,806,186)	$ (13,574,557)	$ (14,389,030)	$ (15,252,372)	$ (16,167,515)	$ (17,137,565)
16	$ 12,505,668	$ 13,256,008	$ 14,051,369	$ 14,894,451	$ 15,788,118	$ 16,735,405	$ 17,739,529	$ 18,803,901
17	$ 23,741,452	$ 25,165,940	$ 26,675,896	$ 28,276,450	$ 30,000,087	$ 32,462,033	$ 34,409,755	$ 36,474,340
18	$ 4,170,185	$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,170,184
19	$ 279,274	$ 271,517	$ 264,458	$ 274,825	$ 295,558	$ 309,813	$ 314,348	$ 314,348
20	$ 28,190,911	$ 29,607,640	$ 31,110,538	$ 32,721,458	$ 34,465,830	$ 36,942,030	$ 38,894,287	$ 40,958,872
21								
22	$ 42,074,725	$ 42,863,556	$ 43,763,554	$ 44,737,860	$ 45,845,618	$ 47,685,203	$ 49,000,846	$ 50,428,818
23	$ 47,458,553	$ 48,044,547	$ 48,653,648	$ 52,503,105	$ 54,663,605	$ 56,504,274	$ 57,334,363	$ 58,271,442
24								
25	$ (5,383,828)	$ (5,180,991)	$ (4,890,094)	$ (7,765,245)	$ (8,817,987)	$ (8,819,070)	$ (8,333,517)	$ (7,842,625)
26	12/31/2016	12/31/2017	12/31/2018	12/31/2019	12/31/2020	12/31/2021	12/31/2022	12/31/2023
27								
28								
29								
30								
31	2016	2017	2018	2019	2020	2021	2022	2023
32	**Start Phase II**							
33	$ 500,000	$ 1,000,000	$ 8,000,000	$ 16,000,000	$ 11,000,000	$ 3,500,000		

	U	V	W	X	Y	Z	AA	AB
1								
2	2024	2025	2026	2027	2028	2029	2030	2031
3			**Start Phase II**					
4			$ 500,000	$ 1,000,000	$ 8,000,000	$ 16,000,000	$ 11,000,000	$ 3,500,000
5	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976
6	$ (93,110,000)	$ (93,110,000)	$ (92,610,000)	$ (91,610,000)	$ (83,610,000)	$ (67,610,000)	$ (56,610,000)	$ (53,110,000)
7	$ 149,468,976	$ 149,468,976	$ 149,968,976	$ 150,968,976	$ 158,968,976	$ 174,968,976	$ 185,968,976	$ 189,468,976
8	$ (49,544,667)	$ (53,714,851)	$ (57,898,986)	$ (62,111,020)	$ (66,546,254)	$ (71,427,888)	$ (76,616,422)	$ (81,902,606)
9	$ (19,401,692)	$ (21,034,736)	$ (22,673,243)	$ (24,322,675)	$ (26,059,513)	$ (27,971,161)	$ (30,002,991)	$ (32,073,060)
10	$ 80,522,617	$ 74,719,389	$ 69,396,748	$ 64,535,281	$ 66,363,209	$ 75,569,927	$ 79,349,563	$ 75,493,310
11	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
12	$ 8,833,331	$ 8,196,717	$ 7,612,823	$ 7,079,520	$ 7,280,044	$ 8,290,021	$ 8,704,647	$ 8,281,616
13					$ (1,912,962)			
14	$ 36,896,485	$ 39,110,274	$ 41,456,890	$ 43,944,304	**$ 44,668,000**	$ 47,348,080	$ 50,188,965	$ 53,200,303
15	$ (18,165,819)	$ (19,255,768)	$ (20,411,115)	$ (21,635,781)	$ (22,933,928)	$ (24,309,964)	$ (25,768,562)	$ (27,314,676)
16	$ 19,932,135	$ 21,128,063	$ 22,395,747	$ 23,739,492	$ 25,163,861	$ 26,673,693	$ 28,274,114	$ 29,970,561
17	$ 38,662,800	$ 40,982,568	$ 43,441,522	$ 46,048,014	$ 46,897,933	$ 49,711,809	$ 52,694,517	$ 55,856,188
18	$ 4,170,184	$ 4,170,184	$ 4,184,134	$ 4,212,034	$ 4,435,234	$ 4,881,634	$ 5,188,534	$ 5,286,184
19	$ 314,348	$ 314,348	$ 314,348	$ 314,348	$ 314,348	$ 314,348	$ 314,348	$ 314,348
20	$ 43,147,333	$ 45,467,101	$ 47,940,005	$ 50,574,396	$ 51,647,515	$ 54,907,791	$ 58,197,400	$ 61,456,721
21								
22	$ 51,980,664	$ 53,663,818	$ 55,552,828	$ 57,653,917	$ 58,927,559	$ 63,197,812	$ 66,902,047	$ 69,738,337
23	$ 59,326,737	$ 60,507,340	$ 61,820,771	$ 63,274,999	$ 62,965,509	$ 64,612,404	$ 66,420,103	$ 68,398,255
24								
25	$ (7,346,073)	$ (6,843,522)	$ (6,267,943)	$ (5,621,082)	$ (4,037,950)	$ (1,414,592)	$ 481,944	$ 1,340,082
26	12/31/2024	12/31/2025	12/31/2026	12/31/2027	12/31/2028	12/31/2029	12/31/2030	12/31/2031
27								
28								
29								
30								
31	2024	2025	2026	2027	2028	2029	2030	2031
32	**Start Phase III**							
33								

	AC	AD	AE	AF	AG	AH	AI
1							
2	2032	2033	2034	2035	2036	2037	
3							
4							
5	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	
6	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	
7	$ 189,468,976	$ 189,468,976	$ 189,468,976	$ 189,468,976	$ 189,468,976	$ 189,468,976	
8	$ (87,188,790)	$ (92,474,974)	$ (97,761,158)	$ (103,047,342)	$ (108,333,526)	$ (113,619,710)	
9	$ (34,143,130)	$ (36,213,200)	$ (38,283,269)	$ (40,353,339)	$ (42,423,409)	$ (44,493,479)	
10	$ 68,137,056	$ 60,780,802	$ 53,424,548	$ 46,068,295	$ 38,712,041	$ 31,355,787	
11	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	
12	$ 7,474,635	$ 6,667,654	$ 5,860,673	$ 5,053,692	$ 4,246,711	$ 3,439,730	$ 259,765,660
13							
14	$ 56,392,321	$ 59,775,860	$ 63,362,412	$ 67,164,156	$ 71,194,006	$ 75,465,646	
15	$ (28,953,556)	$ (30,690,769)	$ (32,532,216)	$ (34,484,149)	$ (36,553,198)	$ (38,746,389)	
16	$ 31,768,795	$ 33,674,922	$ 35,695,418	$ 37,837,143	$ 40,107,371	$ 42,513,814	
17	$ 59,207,559	$ 62,760,013	$ 66,525,614	$ 70,517,151	$ 74,748,180	$ 79,233,071	
18	$ 5,286,184	$ 5,286,184	$ 5,286,184	$ 5,286,184	$ 5,286,184	$ 5,286,184	
19	$ 314,348	$ 314,348	$ 314,348	$ 314,348	$ 314,348	$ 314,348	
20	$ 64,808,092	$ 68,360,546	$ 72,126,146	$ 76,117,683	$ 80,348,712	$ 84,833,603	
21							
22	$ 72,282,727	$ 75,028,199	$ 77,986,819	$ 81,171,375	$ 84,595,423	$ 88,273,333	$ 1,469,602,202
23	$ 70,557,087	$ 72,907,441	$ 75,460,807	$ 78,229,366	$ 81,226,030	$ 84,464,484	$ 1,569,221,600
24							
25	$ 1,725,639	$ 2,120,758	$ 2,526,012	$ 2,942,009	$ 3,369,393	$ 3,808,848	**$ (99,619,398)**
26	12/31/2032	12/31/2033	12/31/2034	12/31/2035	12/31/2036	12/31/2037	
27							$ (99,619,398)
28							
29							
30							
31	2032	2033	2034	2035	2036	2037	
32							
33							$ -

	A	B	C	D
34	Eligible Plant			
35	Less Gypsum Plant Requirements			
36	Revised Eligible Plant			
37	Less Accumulated Depreciation			
38	Less Deferred Tax Balance			
39	Environmental Compliance Rate Base			
40	Rate of Return			
41				
42				
43	Operating Expenses			
44	less Gypsum to On-site Landfill			
45	Gypsum to Sterling			
46	Net Operating			
47	Annual Depreciation			
48	Annual Property Tax Expense			
49	Total OE			
50				
51	Total E(m) Gypsum to On-site Landfill as Calculated			
52	Total E(m) Gypsum to On-site Landfill per KU			
53				
54	Calculation Check Difference			
55				
56				
57	Site E/F	Hauling cost of Ash 2.25 mile round trip		
58		Haul Road Maintenance		
59	Total			
60	Reduce by 50% for Site M			
61	**Difference**		**PVRR**	**7.81%**

	E	F	G	H	I	J	K	L
34		$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976
35		$ -	$ -	$ -	$ -	$ -	$ -	$ -
36		$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976
37						$ (5,110,443)	$ (10,744,623)	$ (16,396,576)
38						$ (732,114)	$ (3,915,341)	$ (6,717,677)
39		$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 185,291,361	$ 187,281,989	$ 179,464,723
40		11.1%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
41		$ 480,509	$ 5,098,729	$ 11,571,793	$ 19,480,236	$ 20,326,462	$ 20,544,834	$ 19,687,280
42								
43		$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117
44						$ -	$ -	$ -
45						$ -	$ -	$ -
46		$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117
47						$ 5,110,443	$ 5,634,180	$ 5,651,953
48			$ 6,483	$ 69,718	$ 158,229	$ 266,366	$ 279,017	$ 286,798
49		$ 84,800	$ 127,832	$ 198,348	$ 294,577	$ 24,380,117	$ 26,056,704	$ 27,290,868
50								
51		$ 565,309	$ 5,226,561	$ 11,770,141	$ 19,774,813	$ 44,706,579	$ 46,601,539	$ 46,978,148
52		$ 565,309	$ 5,226,225	$ 11,769,378	$ 19,773,528	$ 44,705,239	$ 46,600,208	$ 46,976,843
53								
54		$ -	$ 336	$ 763	$ 1,285	$ 1,340	$ 1,331	$ 1,305
55								
56								
57						$ 2,822,723	$ 2,992,086	$ 3,171,612
58						$ 53,529	$ 56,741	$ 60,145
59						$ 2,876,252	$ 3,048,827	$ 3,231,757
60		$ -	$ -	$ -	$ -	$ 1,438,126	$ 1,524,414	$ 1,615,878
61	**$ (21,865,903)**							

	M	N	O	P	Q	R	S	T
34	$ 203,078,976	$ 204,078,976	$ 212,078,976	$ 228,078,976	$ 239,078,976	$ 242,578,976	$ 242,578,976	$ 242,578,976
35	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
36	$ 203,078,976	$ 204,078,976	$ 212,078,976	$ 228,078,976	$ 239,078,976	$ 242,578,976	$ 242,578,976	$ 242,578,976
37	$ (22,062,480)	$ (27,756,283)	$ (33,673,286)	$ (40,036,689)	$ (46,706,992)	$ (53,474,945)	$ (60,242,897)	$ (67,010,850)
38	$ (9,166,960)	$ (11,288,480)	$ (13,186,459)	$ (15,678,367)	$ (18,290,458)	$ (20,940,788)	$ (23,591,119)	$ (26,241,449)
39	$ 171,849,536	$ 165,034,213	$ 165,219,232	$ 172,363,920	$ 174,081,526	$ 168,163,243	$ 158,744,960	$ 149,326,677
40	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
41	$ 18,851,894	$ 18,104,253	$ 18,124,550	$ 18,908,322	$ 19,096,743	$ 18,447,508	$ 17,414,322	$ 16,381,136
42					$ 27,051	$ 661,940		
43	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,556	**$ 28,601,000**	**$ 30,979,000**	$ 32,837,740	$ 34,808,004
44	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
45	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
46	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,556	$ 28,601,000	$ 30,979,000	$ 32,837,740	$ 34,808,004
47	$ 5,665,904	$ 5,693,803	$ 5,917,003	$ 6,363,403	$ 6,670,303	$ 6,767,953	$ 6,767,953	$ 6,767,953
48	$ 279,274	$ 271,517	$ 264,458	$ 274,825	$ 295,558	$ 309,813	$ 314,348	$ 314,348
49	$ 28,578,421	$ 29,956,559	$ 31,612,174	$ 33,594,783	$ 35,566,861	$ 38,056,766	$ 39,920,041	$ 41,890,306
50								
51	$ 47,430,316	$ 48,060,812	$ 49,736,723	$ 52,503,105	$ 54,663,605	$ 56,504,274	$ 57,334,363	$ 58,271,442
52	$ 47,458,553	$ 48,044,547	$ 48,653,648					
53								
54	$ (28,237)	$ 16,265	$ 1,083,075					
55								
56								
57	$ 3,361,908	$ 3,563,623	$ 3,777,440	$ 4,004,087	$ 4,244,332	$ 4,498,992	$ 4,768,931	$ 5,055,067
58	$ 63,754	$ 67,579	$ 71,634	$ 75,932	$ 80,488	$ 85,317	$ 90,436	$ 95,862
59	$ 3,425,662	$ 3,631,202	$ 3,849,074	$ 4,080,018	$ 4,324,820	$ 4,584,309	$ 4,859,367	$ 5,150,929
60	$ 1,712,831	$ 1,815,601	$ 1,924,537	$ 2,040,009	$ 2,162,410	$ 2,292,154	$ 2,429,684	$ 2,575,465
61								

	U	V	W	X	Y	Z	AA	AB
34	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976
35	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
36	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976
37	$ (73,778,803)	$ (80,546,756)	$ (87,314,709)	$ (94,082,662)	$ (100,850,615)	$ (107,618,568)	$ (114,386,521)	$ (121,154,474)
38	$ (28,891,779)	$ (31,542,110)	$ (34,192,440)	$ (36,842,770)	$ (39,493,101)	$ (42,143,431)	$ (44,793,762)	$ (47,444,092)
39	$ 139,908,393	$ 130,490,110	$ 121,071,827	$ 111,653,543	$ 102,235,260	$ 92,816,977	$ 83,398,693	$ 73,980,410
40	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
41	$ 15,347,951	$ 14,314,765	$ 13,281,579	$ 12,248,394	$ 11,215,208	$ 10,182,022	$ 9,148,837	$ 8,115,651
42					$ (1,912,962)			
43	$ 36,896,485	$ 39,110,274	$ 41,456,890	$ 43,944,304	**$ 44,668,000**	$ 47,348,080	$ 50,188,965	$ 53,200,303
44	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
45	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
46	$ 36,896,485	$ 39,110,274	$ 41,456,890	$ 43,944,304	$ 44,668,000	$ 47,348,080	$ 50,188,965	$ 53,200,303
47	$ 6,767,953	$ 6,767,953	$ 6,767,953	$ 6,767,953	$ 6,767,953	$ 6,767,953	$ 6,767,953	$ 6,767,953
48	$ 314,348	$ 314,348	$ 314,348	$ 314,348	$ 314,348	$ 314,348	$ 314,348	$ 314,348
49	$ 43,978,786	$ 46,192,575	$ 48,539,191	$ 51,026,605	$ 51,750,301	$ 54,430,381	$ 57,271,266	$ 60,282,604
50								
51	$ 59,326,737	$ 60,507,340	$ 61,820,771	$ 63,274,999	$ 62,965,509	$ 64,612,404	$ 66,420,103	$ 68,398,255
52								
53								
54								
55								
56								
57	$ 5,358,371	$ 5,679,873	$ 6,020,666	$ 6,381,906	$ 6,764,820	$ 7,170,709	$ 7,600,952	$ 8,057,009
58	$ 101,614	$ 107,711	$ 114,174	$ 121,024	$ 128,285	$ 135,982	$ 144,141	$ 152,790
59	$ 5,459,985	$ 5,787,584	$ 6,134,839	$ 6,502,930	$ 6,893,105	$ 7,306,692	$ 7,745,093	$ 8,209,799
60	$ 2,729,993	$ 2,893,792	$ 3,067,420	$ 3,251,465	$ 3,446,553	$ 3,653,346	$ 3,872,547	$ 4,104,899
61								

	AC	AD	AE	AF	AG	AH	AI
34	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	
35	$ -	$ -	$ -	$ -	$ -	$ -	
36	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	
37	$ (127,922,427)	$ (134,690,380)	$ (141,458,333)	$ (148,226,286)	$ (154,994,239)	$ (161,762,192)	
38	$ (50,094,422)	$ (52,744,753)	$ (55,395,083)	$ (58,045,413)	$ (60,695,744)	$ (63,346,074)	
39	$ 64,562,127	$ 55,143,844	$ 45,725,560	$ 36,307,277	$ 26,888,994	$ 17,470,710	
40	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	
41	$ 7,082,465	$ 6,049,280	$ 5,016,094	$ 3,982,908	$ 2,949,723	$ 1,916,537	$ 363,369,986
42							
43	$ 56,392,321	$ 59,775,860	$ 63,362,412	$ 67,164,156	$ 71,194,006	$ 75,465,646	
44	$ -	$ -	$ -	$ -	$ -	$ -	
45	$ -	$ -	$ -	$ -	$ -	$ -	
46	$ 56,392,321	$ 59,775,860	$ 63,362,412	$ 67,164,156	$ 71,194,006	$ 75,465,646	
47	$ 6,767,953	$ 6,767,953	$ 6,767,953	$ 6,767,953	$ 6,767,953	$ 6,767,953	
48	$ 314,348	$ 314,348	$ 314,348	$ 314,348	$ 314,348	$ 314,348	
49	$ 63,474,622	$ 66,858,161	$ 70,444,713	$ 74,246,458	$ 78,276,307	$ 82,547,947	
50							
51	$ 70,557,087	$ 72,907,441	$ 75,460,807	$ 78,229,366	$ 81,226,030	$ 84,464,484	
52							
53							
54							
55							
56							
57	$ 8,540,429	$ 9,052,855	$ 9,596,026	$ 10,171,788	$ 10,782,095	$ 11,429,021	
58	$ 161,957	$ 171,675	$ 181,975	$ 192,894	$ 204,467	$ 216,735	
59	$ 8,702,387	$ 9,224,530	$ 9,778,002	$ 10,364,682	$ 10,986,563	$ 11,645,756	
60	$ 4,351,193	$ 4,612,265	$ 4,889,001	$ 5,182,341	$ 5,493,281	$ 5,822,878	
61							

Cell: D16
Comment: John Walters:
Insert $9.00 for Limestone Backhaul calculation

	A	B	C	D	E	F
1	Revenue Requirments Summary					
2	2009 Amended Plan - Offsite Gypsum Disposal					
3						
4	Project 30		Ghent Landfill Phase I			2009
5						
6	Revenue Requirement					
7	Eligible Plant					$ 4,321,671
8	Less Gypsum Plant					$ -
9	Revised Eligible Plant					$ 4,321,671
10	Less Accumulated Depreciation					
11	Less Deferred Tax Balance					
12	Environmental Compliance Rate Base					$ 4,321,671
13	Rate of Return					11.1%
14						$ 480,509
15						
16	Operating Expenses					$ 84,800
17	less Gypsum to On-site Landfill					
18	Gypsum to Sterling (800,000 tons)					
19	Net Operating					$ 84,800
20	Annual Depreciation					
21	Annual Property Tax Expense					
22	Total OE					$ 84,800
23						
24	Total E(m) Gypsum to Sterling					$ 565,309
25	Total E(m) Gypsum to On-site Landfill					$ 565,309
26						
27	Difference					$ -

	G	H	I	J	K	L	M	N
1								
2								
3								
4	2010	2011	2012	2013	2014	2015	2016	2017
5								
6								
7	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 203,254,220	$ 203,969,979
8	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
9	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 203,254,220	$ 203,969,979
10				$ (5,110,443)	$ (10,744,623)	$ (16,396,576)	$ (22,067,369)	$ (27,758,131)
11				$ (732,114)	$ (3,915,341)	$ (6,717,677)	$ (9,168,992)	$ (11,289,232)
12	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 185,291,361	$ 187,281,989	$ 179,464,723	$ 172,017,859	$ 164,922,616
13	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
14	$ 5,098,729	$ 11,571,793	$ 19,480,236	$ 20,326,462	$ 20,544,834	$ 19,687,280	$ 18,870,359	$ 18,092,011
15								
16	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244	$ 23,991,239
17				$ -	$ -	$ -	$ -	$ -
18				$ -	$ -	$ -	$ -	$ -
19	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244	$ 23,991,239
20				$ 5,110,443	$ 5,634,180	$ 5,651,953	$ 5,670,793	$ 5,690,762
21	$ 6,483	$ 69,718	$ 158,229	$ 266,366	$ 279,017	$ 286,798	$ 279,274	$ 271,751
22	$ 127,832	$ 198,348	$ 294,577	$ 24,380,117	$ 26,056,704	$ 27,290,868	$ 28,583,311	$ 29,953,752
23								
24	$ 5,226,561	$ 11,770,141	$ 19,774,813	$ 44,706,579	$ 46,601,539	$ 46,978,148	$ 47,453,670	$ 48,045,763
25	$ 5,226,225	$ 11,769,378	$ 19,773,528	$ 44,705,239	$ 46,600,208	$ 46,976,843	$ 47,458,553	$ 48,044,547
26								
27	$ 336	$ 763	$ 1,285	$ 1,340	$ 1,331	$ 1,305	$ (4,883)	$ 1,216

	O	P
1		
2		
3		
4	2018	
5		
6		
7	$ 203,969,979	
8	$ -	
9	$ 203,969,979	
10	$ (33,448,893)	
11	$ (13,098,586)	
12	$ 157,422,500	
13	10.97%	
14	$ 17,269,248	
15		
16	$ 25,430,713	
17	$ -	
18	$ -	
19	$ 25,430,713	
20	$ 5,690,762	
21	$ 264,317	
22	$ 31,385,792	
23		
24	$ 48,655,040	
25	$ 48,653,648	
26		
27	$ 1,392	$ 4,084

Kentucky Energy and Environment Cabinet
Department for Environmental Protection
Division of Waste Management

PERMIT

Facility:
Sterling Ventures LLC
100 Sierra Dr
Verona, KY 41092

Permittee:
Sterling Materials
376 South Broadway
Lexington, KY 40508

Agency Interest:
Sterling Ventures LLC
100 Sierra Dr
Verona, KY 41092

The Division has issued the permit under the provisions of KRS Chapter 224 and regulations promulgated pursuant thereto. This permitted activity or activities are subject to all conditions and operating limitations contained herein. Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses or approvals required by this Division or other state and local agencies.

No deviation from the plans and specifications submitted with your application or any condition specified herein is allowed, unless authorized in writing from the Division. Violation of the terms and conditions specified herein may render this permit null and void. All rights of inspection by representatives of the Division are reserved. Conformance with all applicable Waste Management Regulations is the responsibility of the permittee.

Agency Interest ID #: **1461**

Solid Waste Permit #: **SW00800023**

County: **Gallatin**

Permitted Activities:

Subject Item	Activity	Type	Status
ACTV001	Beneficial Reuse-Special Waste-RPBR/00800023	Registered Permit by Rule	Active

Permit Number: SW00800023 Agency Interest ID: 1461

PERMIT

First Operational Permit Effective Date: 11/19/2010

Permit Effective Date: 11/19/2010

Permit Expiration Date: Life of facility

Permit issued: 11/19/2010

R. D. Gruzesky

Ronald D. Gruzesky, P.E.
Manager, Solid Waste Branch

Permit Conditions:

Subject Items

ACTV0001 - Beneficial Reuse-Special Waste-RPBR

Standard Requirements:

1. General: The owner or operator of a special waste facility shall comply with KRS Chapter 224 and 401 KAR Chapters 30, 40 and 45 for the operation of special waste facilities. [KRS 224.50-760]

2. General: For operation of the special waste beneficial reuse that is not otherwise specified in 401 KAR 45:060, the owner or operator shall comply with KRS Chapter 224.50-760, 401 KAR 45:070 and the approved permit application(s). [401 KAR 45:070]

Variances, Alternate Specifications and Special Conditions:

1. Operation: The owner or operator is approved to beneficially reuse flue gas desulfurization gypsum produced by the KU Ghent Power Station in mined out sections of the Sterling Mine on the first level, in the Tyrone Limestone. [401 KAR 45:070 Section 3]

2. Operation: The owner or operator shall submit a revised registration prior to beneficially reusing sources or types of wastes other than FGD sludge from the KU Ghent power station, beneficially reusing FGD gypsum in areas other than the first level of the mine, changing the method of processing waste, adding new processes, changing the operator, or changing ownership. [401 KAR 45:070 Section 4]

PERMIT

3. Operation: The owner or operator shall comply with the Environmental Performance Standards of 401 KAR 30:031. [401 KAR 30:031]

4. Operation: The owner or operator is approved to beneficially reuse up to 800,000 tons per year of FGD gypsum. [401 KAR 45:070 Section 3]

5. Operation: The owner or operator shall ensure that no water, except that necessary for dust suppression, shall enter the beneficial reuse area. [401 KAR 45:140 Section 2]

6. Operation: The owner or operator shall ensure that the FGD gypsum is stored only in areas with no standing water. [401 KAR 45:140 Section 2]

County Sources - The owner or operator may accept waste as authorized by the cabinet pursuant to KRS 224 and/or 401 KAR Chapter 47 from the following counties:

Kentucky: Carroll

Approved Applications - The owner or operator shall comply with applicable statutes and regulations and the following approved applications:

1. 11-19-2010 - ARP20100001 - Registered Permit-by-Rule Beneficial Reuse

From: Pfeiffer, Caryl(/O=LGE/OU=LOUISVILLE/CN=RECIPIENTS/CN=E012383)
To: Straight, Scott; Joyce, Jeff; Tapp Sr., Kenny (Electric); Puckett, Paul
CC: Dotson, Mike; Gilbert, Bill G.; Smith, Timothy (Fuels)
BCC:
Subject: FW: Ghent Station Gypsum Disposal
Sent: 11/07/2011 10:58:46 AM -0500 (EST)
Attachments:

FYI

From: John Walters [mailto:johnwalters@sterlingventures.com]
Sent: Monday, November 07, 2011 10:24 AM
To: Pfeiffer, Caryl
Subject: RE: Ghent Station Gypsum Disposal

Thanks for the update.

John

From: Pfeiffer, Caryl [mailto:Caryl.Pfeiffer@lge-ku.com]
Sent: Monday, November 07, 2011 10:22 AM
To: John Walters
Cc: Alex Boone
Subject: RE: Ghent Station Gypsum Disposal

John
I saw Scott on Friday and he said he had received your updated proposal and that his group was coordinating the analysis of the information with our Energy Planning, Forecasting and Analysis people and plant personnel. He said he would get back with you all once the internal analysis was completed.
Caryl

From: John Walters [mailto:johnwalters@sterlingventures.com]
Sent: Friday, November 04, 2011 11:15 AM
To: Pfeiffer, Caryl
Cc: Alex Boone
Subject: Ghent Station Gypsum Disposal

Caryl

Last Thursday, I sent Scott Straight and John Voyles an updated PVRR analysis comparing the alternative of using of Sterling's underground mine for Ghent's gypsum disposal to the current plan to place excess gypsum in the new landfill. The update was based on additional information from more recent PSC filings, and that update, along with the new assumptions, is attached.

Since I first provided our PVRR savings analysis on September 17, I have not been able to talk to anyone about the proposal. As I indicated in my cover letter in September, I necessarily had to make assumptions in calculating the PVRR saving - most importantly the projected cost and timing of phases 2 and 3 of the new landfill. Am I correct in assuming that a lack of any response to a potential $80,000,000 PVRR saving is the result of my analysis and/or assumption being grossly incorrect? If that is the case, could someone let me know what errors I made in my analysis? I was hoping to provide an alternative that substantially delayed the need to build phase 2, and eliminated entirely the need for phase 3.

Also, I have not received any response to our updated proposal, as requested by Tim Smith, to use our mine for disposal of 1,500,000 tons of gypsum from Ghent's stacking pond. Is Ghent still looking at a short term plan to dispose of gypsum in the stacking pond? I understand that Tim Smith has been transferred to Trimble County. If there is still a need with respect to Ghent's gypsum stacking pond, who should we be talking to?

Any help would be appreciated.

John

John W. Walters, Jr.
Sterling Ventures, LLC
376 South Broadway
Lexington, KY 40508
Phone (859) 259-9600
Cell (859) 621-3990
Fax (859) 259-9601
johnwalters@sterlingventures.com

From: Pfeiffer, Caryl(/O=LGE/OU=LOUISVILLE/CN=RECIPIENTS/CN=E012383)
To: 'John Walters'
CC: Tapp Sr., Kenny (Electric)
BCC:
Subject: RE: Sterling Material Ghent Gypsum disposal
Sent: 10/27/2011 09:08:13 AM -0400 (EDT)
Attachments:

John
The assessment of disposal alternatives goes on in our Project Engineering area with support from the plants, Environmental Affairs, Legal, Fuels, etc. John Voyles, the VP of Transmission/Generation Services, has oversight of that area and can be reached at 502-627-4762. Scott Straight, the Director of Project Engineering, is responsible for coordinating that assessment and can be reached at 502-627-2701.
Caryl

From: John Walters [mailto:johnwalters@sterlingventures.com]
Sent: Wednesday, October 26, 2011 11:38 AM
To: Pfeiffer, Caryl
Subject: Sterling Material Ghent Gypsum disposal

Caryl:

I know you have been on vacation for a couple of weeks, and your desk is probably overflowing. However, I would like to find out about who I should be talking to about the proposal for gypsum disposal at Ghent that I sent by email on September 19th.

I talked to Mike Dotson a couple of weeks ago, and he told me that disposal alternatives to the new proposed CCP landfill was not something your department handled. Has this been forwarded to another department? If so, who should I be contacting?

Any help would be appreciated.

Thanks.

John

John W. Walters, Jr.
Sterling Ventures, LLC
376 South Broadway
Lexington, KY 40508
Phone (859) 259-9600
Cell (859) 621-3990
Fax (859) 259-9601
johnwalters@sterlingventures.com

From: Smith, Timothy(/O=LGE/OU=LOUISVILLE/CN=RECIPIENTS/CN=E008722)
To: Pfeiffer, Caryl; Joyce, Jeff; Tapp Sr., Kenny (Electric); Gilbert, Bill G.; Dotson, Mike; Puckett, Paul
CC:
BCC:
Subject: RE: Ghent Gyspum Disposal
Sent: 09/20/2011 03:02:44 PM -0400 (EDT)
Attachments:

Alex Boone, President of Sterling Materials showed up at the plant today and wanted permission to drive around our ash/gypsum facilities. The guard gate called me and I told him we would require a KU representative to be with him and that we didn't have anyone available right now. He said he would just come back another time.

I reviewed their proposal and found it to be full of inaccurate assumptions in how they calculated their $100M savings.

Also, their pricing for storage is also still too high. They want us to pay them $5.50/ton plus pay the $650k to develop a shaft at their mine plus us to be responsible for reclaiming, dewatering, loading and trucking of the material which could very easily take the total price well over the $10.50 ton that they suggest.

Thanks
Tim

From: Pfeiffer, Caryl
Sent: Monday, September 19, 2011 1:41 PM
To: Smith, Timothy; Joyce, Jeff; Tapp Sr., Kenny (Electric); Gilbert, Bill G.; Dotson, Mike; Puckett, Paul
Subject: RE: Ghent Gyspum Disposal

Are we going to get a meeting or conference call together to discuss this?

From: John Walters [mailto:johnwalters@sterlingventures.com]
Sent: Tuesday, September 13, 2011 5:15 PM
To: Smith, Timothy; Joyce, Jeff; Pfeiffer, Caryl; Tapp Sr., Kenny (Electric); Gilbert, Bill G.; Dotson, Mike; Puckett, Paul
Cc: Alex Boone
Subject: Ghent Gyspum Disposal

Please see attached

John W. Walters, Jr.
Sterling Ventures, LLC
376 South Broadway
Lexington, KY 40508
Phone (859) 259-9600
Cell 859-621-3990
Fax (859) 259-9601
johnwalters@sterlingventures.com

From: John Walters(johnwalters@sterlingventures.com)
To: Smith, Timothy (Fuels); Joyce, Jeff; Pfeiffer, Caryl; Tapp Sr., Kenny (Electric); Gilbert, Bill G.; Dotson, Mike; Puckett, Paul
CC: Alex Boone
BCC:
Subject: Ghent Gyspum Disposal
Sent: 09/13/2011 05:15:04 PM -0400 (EDT)
Attachments: LGE - KU Sterling Materials.pdf;

Please see attached

John W. Walters, Jr.
Sterling Ventures, LLC
376 South Broadway
Lexington, KY 40508
Phone (859) 259-9600
Cell 859-621-3990
Fax (859) 259-9601
johnwalters@sterlingventures.com

STERLING
VENTURES

September 13, 2011

Mr. Jeff Joyce
Mr. Timothy Smith
LG&E and KU-Ghent Station
9485 HWY 42 East
Ghent, KY 41045

Ms. Caryl Pfeiffer VIA E-mail
Mr. Kenny Tapp
Mr. Mike Dotson
Mr. Bill Gilbert
Mr. Paul Puckett
LG&E and KU
220 West Main Street
P.O. Box 32010
Louisville, KY 40202

Re: FGD Gypsum Disposal - Ghent Generating Station

Dear Ms. Pfeiffer and Gentlemen:

We have recently met with Tim Smith at Ghent Station to renew discussions concerning the possibility of Sterling Materials disposing of excess FGD Gypsum from the gypsum stacking facility at the Ghent Generating Station. We were unable to reach an agreement last year on gypsum disposal, presumably based on our proposed pricing.

Our pricing was in part based upon a requirement for a minimum tonnage of gypsum in order to cover the cost of Sterling having to install a gypsum access shaft to access our underground mine. The gypsum access shaft is preferable to trucking the gypsum underground, which we considered cost prohibitive. We proposed to Tim that if Ghent was interested in paying for the cost of the gypsum access shaft (which we estimated to be approximately $650,000) we would be willing to enter into an agreement that would give Ghent the right to dispose of its stacking pond gypsum in Sterling's mine. LGE/KU would be responsible for all loading and trucking fees. Sterling's charge in this scenario would be $5.50 per ton, subject to the terms of a final agreement. The $5.50 would be reduced by $1.00 for a period of 18 months in order to encourage early gypsum disposal, and allow you to recoup the cost of the gypsum access shaft.

As we discussed last year, Sterling is interested in not only handling the initial 1,500,000 tons of gypsum from the stacking facility, but also in receiving 100% of Ghent's excess FGD

gypsum for the life of the power plant. Attached is a comparative analysis of the PVRR cost difference between your current plan of placing all CCP's in a new landfill, and placing all gypsum at Sterling, with only ash going into your new landfill. The attached comparative analysis is based upon the capital construction cost and O&M cost you provided to the Kentucky Public Service Commission. Our attached analysis indicates that disposal of gypsum at Sterling could be the least cost PVRR alternative by at least $79,000,000, and possibly over $100,000,000 if scrubber limestone is purchased from Sterling and backhauled to the plant.

Obviously, we have necessarily made some assumptions in the attached comparative analysis, and we would like to meet with you again to discuss our analysis and assumptions, and to answer any questions you may have. We believe there are significant savings to you and your customers as reflected in the attached.

In addition, as we have previously discussed, we also have an underground limestone mine in Jessamine County near E.W. Brown. We met last week with Ron Gruzesky at The Kentucky Division of Solid Waste, and, based on that meeting, are planning to submit an application to permit our Jessamine County mine as a special waste landfill to receive all CCPs. Hopefully, there is the possibility of significant savings to you at Brown as well.

When you have a chance, give me or John Walters a call and we can discuss the above, and plan and how to move forward.

Sincerely,

Samuel A.B. Boone

GHENT STATION ALTERNATIVE FOR CCP/GYPSUM DISPOSAL

Background

Sterling Materials is an active underground limestone mine located in Verona, Kentucky, approximately 20 miles from Kentucky Utilities Company's Ghent Station. Sterling currently mines between 1,000,000 and 1,600,000 tons of limestone per year, and has been in operation since 2000.

In addition to producing limestone for the general aggregate construction market, Sterling also mines high calcium limestone for Mississippi Lime Company for use in Mississippi Lime's kiln located on Sterling's property. This high calcium limestone is also suitable for use as scrubber stone in Ghent's limestone FGD scrubber system.

In November 2010, Sterling obtained a Special Waste Permit from the Kentucky Department of Environmental Protection, Division of Waste Management allowing disposal of FGD gypsum in Sterling's mine.

KU has proposed building a new landfill at Ghent in three phases for an estimated total cost of $360,000,000 to handle the plant's three coal combustion by-products ("CCPs") through 2037[1]. KU forecasted the following wet storage CCP production volumes for Ghent Station (Cubic Yards):

Year	Fly Ash	Bottom Ash	Gypsum
2009	540,000	140,000	880,000
2010	550,000	150,000	1,090,000
2011	580,000	150,000	1,120,000
2012	550,000	150,000	1,060,000
2013	550,000	150,000	1,090,000

Source: Coal Combustion Byproduct Plan for Ghent Station dated June 2009 (the "Ghent CCP Plan" attached as Exhibit A)

Ghent's FGD gypsum is currently placed in a wet gypsum stacking pond. Ghent also has a contract to supply CertainTeed, Inc. with gypsum, and KU has estimated that CertainTeed will purchase approximately 222,000 cubic yards per year of gypsum from Ghent. As a result, Ghent will be required to continue diverting a portion of its gypsum production to the gypsum stacking pond.

The Ghent CCP Plan outlines KU's comparative analysis of the various alternatives to reach the least cost PVRR of disposing of Ghent's CCPs. One of the alternatives considered was off-site disposal at Valley View Landfill near Sulfer, Kentucky, approximately 25 miles from Ghent Station.[2] Disposal at Valley View was however dismissed because of the high cost of loading, hauling and landfill tipping fees.[3] Although, KU has redacted from public view the cost associated with the Valley View disposal alternative, based on

[1] Phase I cost thru 2018 of $203,969,979 as set forth in Revenue Requirement Summary for Project 30 – Ghent Landfill Phase I attached as Exhibit B. Total project capital cost estimated to be $360,000,000 per direct testimony of John Voyles before the Kentucky Public Service Commission in Case No. 2009-00197 attached as Exhibit C.
[2] Ghent CCP Plan, footnote 14, page 10.
[3] Supra at page 19.

other information contained in information provided to the KY PSC, it is estimated that the projected cost for disposal at Valley View in 2009 was approximately $29.65 per ton.[4]

Alternative Proposal for Gypsum Disposal at Sterling Materials' Mine

Sterling Materials is proposing that Ghent send all of its gypsum production (net of sales CertainTeed) to Sterling mine for disposal, with Ghent's ash being disposed of in either the new landfill as proposed on Site E/F, or in a new landfill located at Site M as considered by Case 14/28 in the Ghent CCP Plan (See page 18-19). Sterling estimates that the PVRR cost of this alternative is at least $79,000,000 less than KU's proposal for a new landfill at Site E/F, as set forth in Exhibit D.

Assumptions in Exhibit D analysis

1. Total price for loading, hauling and fees to Sterling Materials of $10.95 in 2013.
2. Net CCP production of approximately 868,000 cubic yards (1,090,000 – 222,000 to CertainTeed).
3. Cubic yards to ton conversion factor – cy x 1.155 (based on Trans Ash conversion assumption of 1.3 MCY equals 1.5 million tons as hauled - see page 10 of Ghent CCP Plan).
4. Reduce Phase I construction cost by $53,110,000[5] by continuing to place gypsum temporarily in existing gypsum stacking pond until shipment to Sterling.
   - Dry Gypsum Handling System $36,800,000
   - Gypsum Fines Project $12,600,000
   - Gypsum Dewatering Facility Earthwork $ 3,710,000
5. Phase III landfill construction cost eliminated. Phase II construction delayed from 2018 to 2030.
   - Phase I capacity – 14.7 MCY (See Ghent CCP Plan page 12)
   - Ash Production – 700,000 MCY (See Ghent CCP Plan page 7)
   - Phase I life until full – 21 years
6. Total Phase II and III construction costs - $156,030,021 (see Footnote 1)
   - Phase II construction cost - $80,000,000
   - Phase III construction cost - $76,030,021
7. Eliminate following Ghent Landfill Operating Expenses (See Ghent Landfill Operating Expenses - Phase I attached as Exhibit F)
   - Dry Gypsum Handling System
   - Hauling Gypsum to Landfill
     - Loading
     - Phase I-2.25 mile round trip
     - Landfilling Gypsum
8. Continue 2018 Annual Depreciation Rate of 2.7899% on Eligible Capital through 2037
9. Continue 2018 Property Tax Expense Rate of .1259% on Eligible Capital through 2037
10. Apply KU O&M Escalation Rate of 6% (See Ghent CCP Plan page 22)

[4] Total beneficial reuse cost of approximately $8,900,000 for 1,500,000 tons of Gypsum to Trans Ash, Inc. equals $5.93/ton (See Comprehensive Strategy for Management of Coal Combustion Byproducts – June 2009), which is almost 80% less than per unit volume basis than disposal at Valley View. (Ghent CCP Plan at pages 18 and 20).
[5] See Ghent Landfill Capital Expenditures Phase I attached as Exhibit E.

Purchase of Scrubber Stone from Sterling

Sterling Materials mines a high calcium seam of limestone in its 2nd and 3rd levels that will meet, and possibly exceed, Ghent's calcium specifications for scrubber stone. Based on general industry knowledge, without verification, it is believed that Ghent's current cost of scrubber stone FOB plant is approximately $8.00.

The proposed price of 10.50 for gypsum disposal at Sterling includes $4.50 per ton for transportation, based upon an assumed round trip turn of 1.5 hours, and $75.00 per hour to haul 25 tons.

Sterling is proposing to sell high calcium limestone to Ghent for $6.50 per ton and backhauling the stone to Ghent. If a $1.50 per ton trucking fee is assigned to the transportation of the limestone, Ghent will incur no additional cost for it scrubber stone. However, reducing the transportation component of the gypsum disposal cost by $1.50 reduces the proposed disposal cost from $10.50 to $9.00 per ton, and correspondingly increases the PVRR saving advantage from approximately $79,000,000 to over $100,000,000. (See Exhibit G).

Construct Ash Storage Pond at Site M

Although KU has redacted from public view information provided to the Kentucky PSC on the cost associated with an ash landfill on Site M, it would generally appear that using Site M as an ash landfill verses Site E/F would substantially reduce ash disposal cost and further increase the PVRR saving from disposing all of Ghent's gypsum at Sterling.

Site M is substantially closer to Ghent than Site E/F (Ghent CCP Plan page 12 and Exhibit H). The estimated cost of hauling fly and bottom ash to Site E/F is $2,822,723 in 2013, and the corresponding haul Road maintenance cost is $53,529. Even reducing those costs by a modest 50% for the haul to Site M verses site E/F would produce another $21,800,000 in PVRR savings compared to CCP disposal at Ghent under Project 30.

EXHIBIT A

Coal Combustion Byproduct Plan for Ghent Station For

Subsidiaries
Kentucky Utilities and
Louisville Gas and Electric

June 2009

CONFIDENTIAL INFORMATION REDACTED

1. Executive Summary

Kentucky Utilities Company's ("KU") Ghent station ("Ghent") produces three primary coal combustion byproducts ("CCP"): bottom ash, fly ash and gypsum, which are currently stored in two ash treatment basins and two gypsum stacking areas. These storage areas are expected to reach full capacity in 2012, creating a need for additional CCP management solutions.

A variety of on-site and off-site options were considered to meet CCP management needs at Ghent. The most effective solutions were identified through a needs analysis and economic analysis based on engineering cost estimates.

To address the pre-2013 need for gypsum storage capacity, an opportunity to remove a quantity of gypsum to be beneficially reused as structural fill was identified. This reuse option is significantly lower cost than transporting CCP to an off-site landfill, which is the other short-term option.

For longer-term CCP storage needs, KU contracted an engineering consultant to develop potential on-site storage alternatives. Of multiple options considered, four options were selected for further economic evaluation. Based on cost estimates and qualitative factors for these alternatives, the most favorable option is a single on-site landfill to store both ash and gypsum.

The most cost effective and environmentally sound CCP management options for Ghent are:

- a proposal for beneficial reuse of 1.3 million cubic yards ("MCY") of CCP (approximately 75% of annual CCP production) by Trans Ash, Inc. in 2010-2012 (Present value of revenue requirement ("PVRR") of [redacted] million or [redacted] per cubic yard), and
- the construction of a new on-site landfill system to store both ash and gypsum production for 25 years to be in-service by 2013 (PVRR of [redacted] million or [redacted] per cubic yard).

In addition, KU will continue to pursue other beneficial reuse opportunities that result in lower disposal costs.

CONFIDENTIAL INFORMATION REDACTED

2. Background

Kentucky Utilities Company's ("KU's") Ghent generating station ("Ghent") is located in Carroll and Gallatin Counties, Kentucky and is comprised of four coal-fired generating units for a total net station capacity of over 1,900 MW. The station produces three primary coal combustion byproducts ("CCP"): bottom ash, fly ash and gypsum. The Ghent station has four existing on-site storage facilities for CCP as follows:

- Ash Treatment Basin ("ATB") #1
- ATB #2
- North Gypsum Stack
- South Gypsum Stack

The ATBs are used to store bottom ash and fly ash which are byproducts of burning coal. ATB #1 is at maximum capacity[1] and ATB #2 is nearing maximum desired capacity. As of February 2009[2], ATB #2 can hold approximately an additional 2.5 MCY of ash. Ghent is forecast to produce approximately 0.7 MCY of ash annually, thus depleting the capacity in ATB #2 in 2012.[3]

Gypsum is produced by Ghent's flue gas desulfurization ("FGD") systems, which use limestone reagent to remove sulfur dioxide from flue gas. Until an additional repository can be developed, Ghent's gypsum is stacked on site. Based on the plant's expected generation, the existing capacity of the north and south gypsum stacks (collectively the "gypsum stack") is expected to be exhausted in 2012.[4]

Some gypsum is currently sold to a third party for beneficial reuse.[5] CertainTeed, Inc. ("CertainTeed") currently pays KU [redacted] per cubic yard for gypsum to be used as a raw material in the production of wallboard. This contract began in 1999 and runs through 2024. CertainTeed does not have minimum or maximum volume obligations, but their expected annual volume is approximately 222,000 cubic yards of gypsum (approximately 20% of annual gypsum production) based on recent utilization data.[6]

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[1] ATB #1 is not relevant to this analysis as it is not currently receiving any CCP, although it is available for emergency use.

[2] A bathymetric survey of ATB #2 was conducted by HDR/Quest/Rudy for GAI Consultants in February 2009.

[3] The available capacity of ATB #2 at the end of June 2009 is forecasted to be approximately 2.3 MCY.

[4] The available capacity of the gypsum stack at the end of June 2009 is forecasted to be approximately 2.6 MCY.

[5] KU identifies economically and environmentally favorable options to beneficially reuse CCP, consistent with KU's Comprehensive Strategy for Management of CCP shown in Exhibit JNV-3.

[6] Gypsum sales to CertainTeed were 263,000 tons in 2007, 375,000 tons in 2008, and 103,000 tons year-to-date through May 2009. However, their purchases decreased late in 2008 and year-to-date in 2009 as the economy slowed.

3. Process and Methodology

KU and Louisville Gas and Electric Company (collectively "the Companies") develop the most effective plan for meeting the CCP storage needs at each generating station. The process of identifying the plan consists of the three following primary tasks which are performed by several departments within the Companies.

- Needs assessment
- Development of alternatives
- Comparison of alternatives

The CCP storage needs are defined by forecasting the production of CCP over the applicable planning period as compared to the existing storage capacity. The Project Engineering department and the applicable generating station are responsible for providing an estimate of remaining capacity.

The expected life of the existing storage capacity is based on the forecast of CCP production, which is developed by Generation Planning for all stations as a function of the expected coal usage for each unit. The Companies compile information regarding the cost of generation for each unit (fuel, variable O&M, emission costs, etc.), a description of the generation capabilities of each unit (capacity, heat rate curve, commitment parameters, emission rates, availability schedules, etc.), a load forecast, the market price of electricity, and the volumetric ability (transfer capability) to access the market. All of this information is brought together in the PROSYM™[7] software, which is used to model the economic operation of the Companies' generating system. The projected coal usage data provided by this model is checked for reasonableness by comparing the results to historical data.

The Project Engineering department develops alternatives for on-site CCP storage solutions and their associated costs. Any alternatives for off-site disposal such as beneficial reuse or off-site landfill disposal are provided by the generating stations' staff and a CCP team focused on exploring alternatives for byproduct storage. The cash flows for selected options are summarized and provided to Generation Planning for evaluation.

The Generation Planning department evaluates the storage and disposal options received from Project Engineering to determine the present value of revenue requirements ("PVRR") associated with the capital expenditures and O&M expenses of each option. This analysis is performed using the Capital Expenditure Recovery module of the Strategist®[8] software model.

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[7] The PROSYM™ model has formed the foundation of prior analyses involving certificates of convenience and necessity for new generating plants, environmental cost recovery for pollution control equipment, and the fuel adjustment clause.

[8] Strategist® is a proprietary, state-of-the-art resource planning computer model. The Capital Expenditure Recovery module is used to quantify the revenue requirements impact associated with capital projects.

4. Needs Assessment

The following capacities were provided by Project Engineering and the Ghent station:

- ATB #1 is at capacity and is available for emergency use only.
- As of February 2009, the remaining available capacity of ATB #2 is 2.5 million cubic yards.[9]
- The remaining available capacity of the gypsum stacks is estimated to be 2.9 MCY as of January 2009.[10]

The expected life of the remaining capacity of the ATB #2 and the Gypsum Stack were estimated by forecasting the CCP production of ash and gypsum at Ghent. The quantity of ash produced at Ghent is estimated at a coal specification of 11.5% ash by weight of the total quantity of coal used, or approximately 11.5 tons of ash per 100 tons of coal. Converting to volumetric measurement, assuming ash production consists of 80% fly ash and 20% bottom ash by weight, approximately 11.5 cubic yards of total ash is produced per 100 tons of coal.[11]

The chemical reaction by which gypsum is produced results in a net gypsum production of approximately 18% by weight of the total quantity of coal used,[12] or approximately 18 tons of gypsum per 100 tons of coal. Converting to volumetric measurement for the gypsum stack, approximately 17.8 cubic yards of gypsum is produced per 100 tons of coal.

The forecasted CCP production volume for Ghent is shown in Table 1 and depicted graphically in Figure 1 and Figure 2, based on the forecasted coal burn shown in Table 2. Table 2 also contains the historical quantities of coal burned as a comparison to the forecast. The increase in coal burn during the 2010-2013 period is due to the completion of the FGD installations at Ghent in 2009, which required prior scheduled outages on each of the Ghent units during 2007-2009. Also, with the addition of the FGDs, Ghent has lower fuel costs, resulting in higher forecasted generation.

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[9] Based on expected coal burn, Generation Planning forecasts that by the end of 2009, the remaining capacity of ATB #2 will be 1.9 MCY.

[10] Based on expected coal burn and existing beneficial reuse, Generation Planning forecasts that by the end of 2009, the remaining capacity of the gypsum stacks will be 2.2 MCY.

[11] Density assumptions for wet storage are 0.945 tons per cubic yard for bottom ash and 1.0125 tons per cubic yard for both fly ash and gypsum.

[12] Fuel specification assumptions include SO_2 content of approximately 5.9 lb/mmBTU and heat content of 22.16 mmBTU/ton.

Table 1: CCP Production Forecast (MCY)

CCP Production Forecast *(MCY – wet storage)*			
	Fly Ash	**Bottom Ash**	**Gypsum**
2009	0.54	0.14	0.88
2010	0.55	0.15	1.09
2011	0.58	0.15	1.12
2012	0.55	0.15	1.06
2013	0.55	0.15	1.09

Table 2: Ghent Coal Usage (Million Tons)

Ghent Coal Usage *(M Tons)*	
Historical	
2004	5.4
2005	5.6
2006	5.6
2007	5.3
2008	5.7
Forecast	
2009	5.6
2010	6.0
2011	6.3
2012	6.1
2013	6.1

The forecasted generation and the resulting coal usage at Ghent correspond to an average capacity factor of approximately 77%. This relatively high capacity factor is consistent with Ghent's low production cost. Since Ghent is already modeled as a baseload station, the risk of significantly underestimating CCP production is low. However, reduction in load or unexpected outages at Ghent could affect the capacity factor and lower future CCP production.

Figures 1 and 2 show the forecasted cumulative CCP production at the end of each year compared to the expected available capacity at the end of 2009. With current forecasts for ash production and without any additional on-site capacity or off-site storage or reuse, ATB #2 is expected to reach full capacity during 2012, as shown in Figure 1. Assuming no beneficial reuse beyond the expected 222,000 cubic yards per year by CertainTeed, the gypsum stack is also expected to reach maximum capacity in 2012, as shown in Figure 2.

Figure 1: ATB #2 Capacity

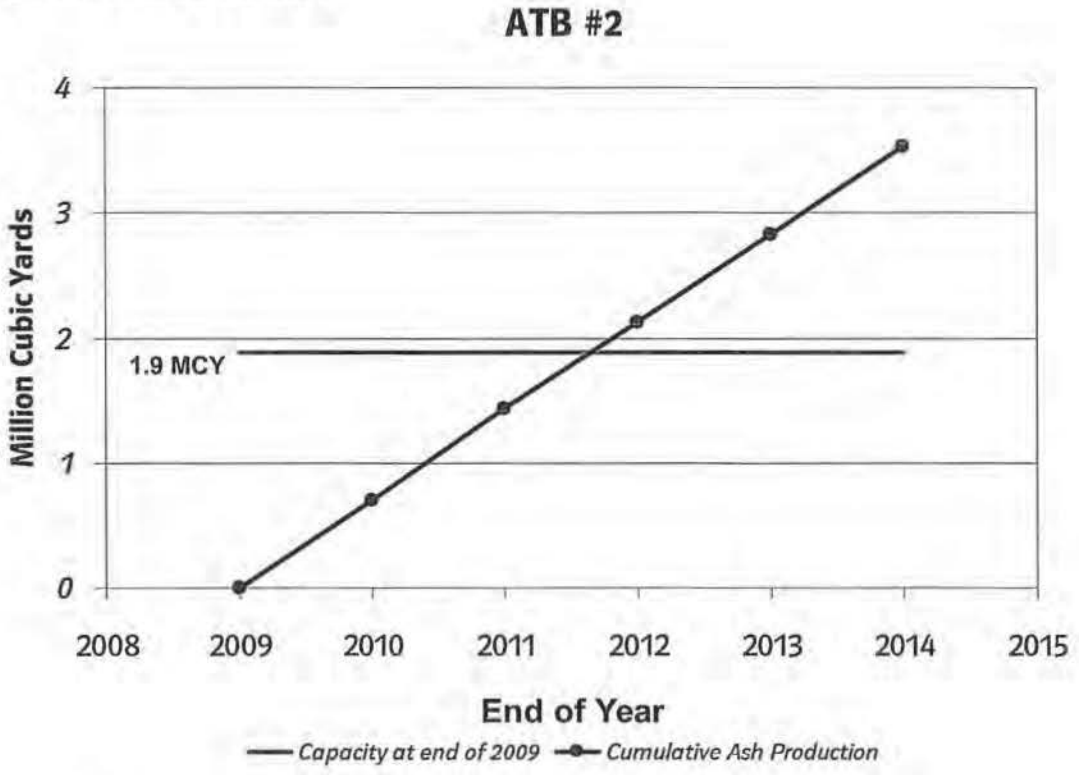
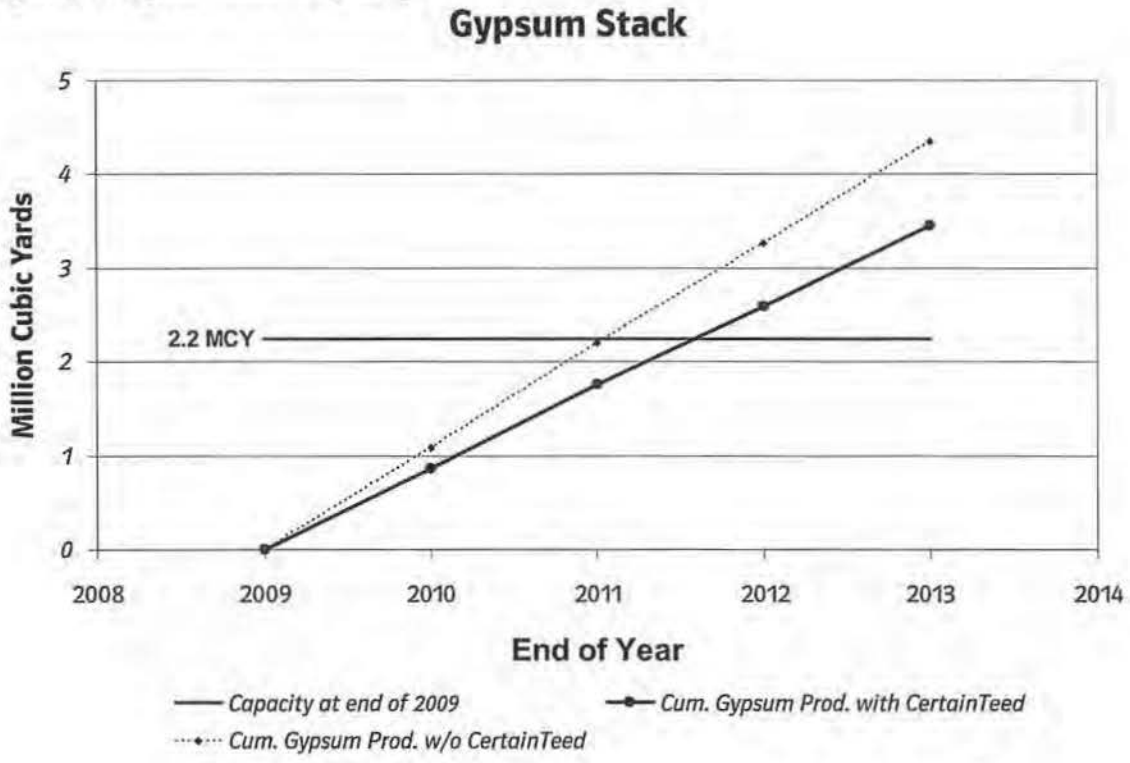


Figure 2: Gypsum Stack Capacity



In summary, the needs assessment indicates that additional CCP disposal alternatives will be needed for both ash and gypsum at Ghent by 2012. At least 0.6 MCY of CCP must be moved off-site in order to maintain operations of the existing storage facilities at Ghent through 2012.

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5. Development of Alternatives

In the case of CCP solutions for Ghent, Project Engineering and the CCP team developed two sets of options for evaluation:

1. Short-term storage options to meet 2009-2012 requirements
2. Long-term storage options to meet 2013-2037 requirements.

The short-term options were developed because long-term options cannot be in service before 2013, and on-site capacity is expected to be depleted in 2012. These options were evaluated independently, leading to a recommendation for short-term and long-term solutions.

5.1 Short-Term Disposal

As a result of ATB #2 and the gypsum stack nearing their maximum desired storage capacities, the station, in conjunction with the CCP Team, negotiated with Trans Ash, Inc. ("Trans Ash"), a company specializing in the reuse of CCP, to beneficially reuse 1.3 MCY (approximately 1.5 million tons as hauled) of CCP as structural fill. The 2009 base cost of this proposal is [redacted] per MCY[13], subject to annual adjustments to the base price and fuel cost adjustments. The base price is redetermined by increasing the previous year's price by 90 percent of the year-over-year percent change in the Consumer Price Index – All Urban Customers, U.S. City Average. The fuel adjustments are made for both off-road and on-road diesel use. Off-road fuel adjustments are calculated as the difference between the base diesel unit price of [redacted] per gallon and the average unit diesel price paid multiplied by the quantity of off-road diesel purchased each year. The on-road diesel adjustment is calculated as the product of the average quantity of fuel used and the difference between the base diesel price and the index price as published by the U.S. Department of Energy, Energy Information Administration in "The U.S. No 2 Diesel Low Sulfur (15-500 ppm) Retail Sales by All Sellers (Cents per Gallon)"

An agreement with Trans Ash would require that the full 1.3 MCY be moved in 2010-2012 to satisfy the end consumer of the beneficial reuse opportunity. Consistent with KU's CCP management strategy, this fill location has been evaluated and confirmed as appropriate for beneficial reuse. The location is not in an environmentally sensitive area.

The only near-term alternative to beneficial reuse of CCP is the use of an existing off-site commercial landfill. For 2009, the total unit cost of storage in the closest off-site landfill was estimated to be [redacted] per cubic yard[14]. In contrast to the Trans Ash proposal, an off-site landfill storage option requires that only a minimum of 0.6 MCY must be moved off-site prior to 2013 to ensure continuing operations at Ghent.

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13 [redacted] per MCY as stored is equivalent to [redacted] per ton as hauled.

14 [redacted] per cubic yard is equivalent to [redacted] per ton as hauled for transport and storage at Valley View landfill near Sulphur, KY, approximately 25 miles from Ghent. Cost components per ton are [redacted] for excavating and loading, [redacted] for hauling, and [redacted] for landfill tipping fee. This quoted tipping fee is slightly below the listed rates of [redacted]/ton for other regional public landfills.

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5.2 Long-Term Storage

To meet the long-term storage needs at Ghent, KU contracted GAI Consultants, Inc., Pittsburgh, PA ("GAI") to provide both an Initial Siting Study ("ISS") and a Final Conceptual Design Study of CCP storage alternatives at Ghent.[15] The ISS identified over forty potential alternatives based on combinations of a number of variables, including storage and transport methods, site locations, and relocation of transmission lines. As a result of this study, four on-site alternatives shown in Table 3 were selected for further consideration. In the process of developing the Final Conceptual Design Study, GAI refined the cost estimates for these alternatives in addition to other detailed engineering tasks. As an alternative to building on-site storage facilities, use of an existing off-site commercial landfill for storing future CCP was also considered as a long-term option.

Table 3: Alternatives for Long-Term Storage

		On-Site				
Case		**14/28**	**37**	**41**	**42/28**	**Off-Site Landfill**
Description		2 Landfills	1 Landfill	1 Pond	1 Pond 1 Landfill	
Total Capacity *(MCY)*		46.1	46.1	53.6	48.3	46.1 needed
Nominal Cost *($M)*	**Capital**					
	O&M[16]					

Each of the cases for on-site long-term storage was designed to hold twenty-five years of CCP production with phased construction. The total capacity required for each case differs due to the different density of CCP stored in ponds versus landfills. Table 4 shows the construction periods, the in-service years, and the capacity for each phase of the on-site cases. The site locations as shown in Figure 3 are noted as follows:

- Site M is north of ATB #2 on property owned by KU.
- Site E/F which is southeast of ATB #2 and include properties owned by KU and approximately 350 acres owned by others.
- Pond L represents vertical and lateral expansion east of ATB #2 with an impoundment.

[15] A preliminary draft of the Final Conceptual Design Study is shown in Exhibit JNV-4.
[16] The O&M figures in Table 3 include the cost for power to operate the on-site storage alternatives.

Figure 3: CCP Storage Site Alternatives

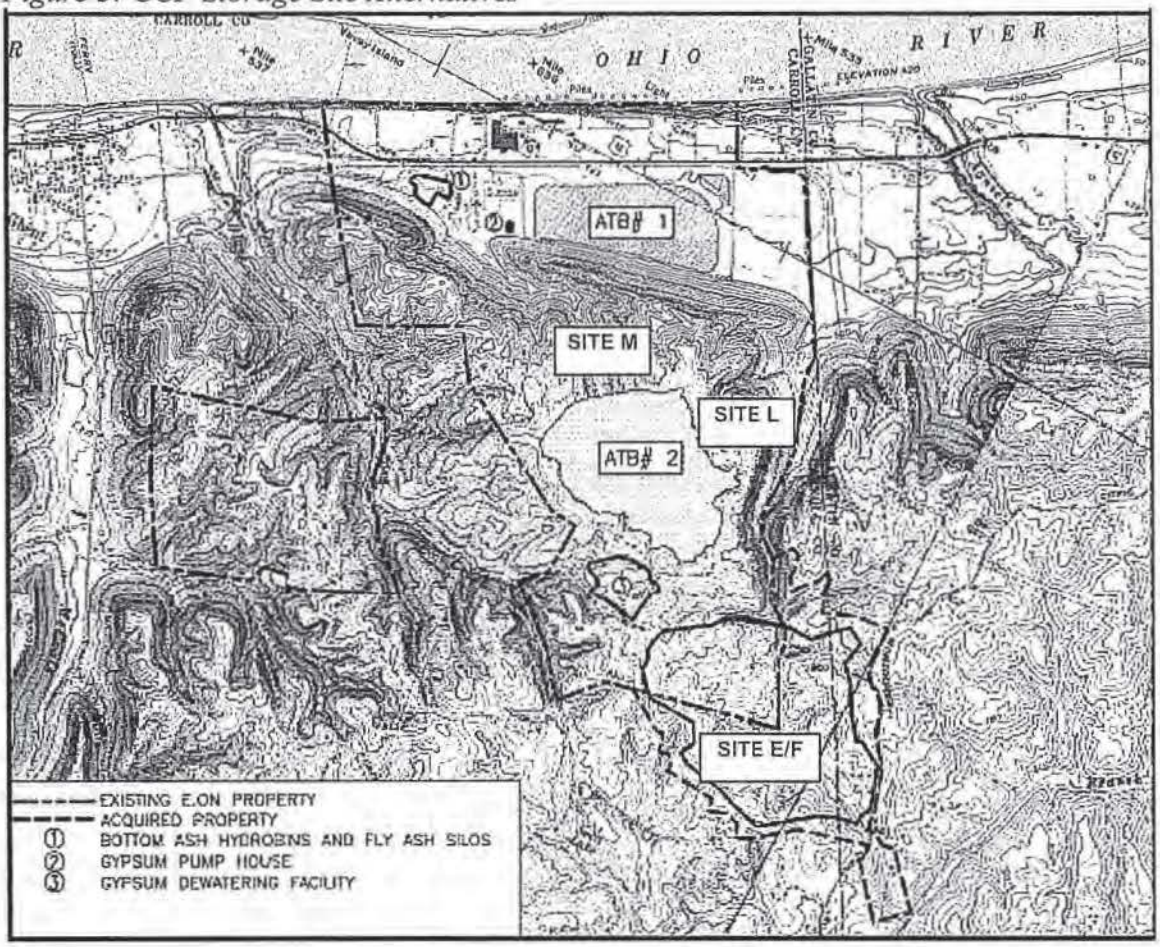


Table 4: Construction Phases for On-Site Storage Options

Case		14/28		37	41	42/28	
Site Location		M	E/F	E/F	L	L	E/F
Phase 1	Construction	2010-14		2010-14	2010-13	2010-14	
	In-Service	2013		2013	2013	2013	
	Capacity *(MCY)*	5.3	5.7	14.7	16.5	7.2	8.4
Phase 2	Construction	2016-18		2018-19	2017-19	2018-20	
	In-Service	2019		2020	2020	2021	
	Capacity *(MCY)*	8.5	8.0	12.3	15.7	8.3	7.7
Phase 3	Construction	--	2023-25	2024-26	2025-27	2027-29	
	In-Service	--	2026	2027	2028	2030	
	Capacity *(MCY)*	--	12.4	19.1	21.6	6.1	8.0
Phase 4	Construction	2027-29	--	--	--	--	
	In-Service	2030	--	--	--	--	
	Capacity *(MCY)*	6.2	--	--	--	--	--

Case 14/28. Case 14/28 consists of separate landfills for ash and gypsum with ash stored at Site M and gypsum stored at Site E/F. Construction of the landfills consists of four phases as shown in Table 4 with the first phase beginning in 2010 and the final phase ending in 2029. Figure 4 shows the phased cumulative design capacity of the landfill at Site M compared to the forecasted ash production. Figure 5 shows the phased cumulative design capacity of the landfill at Site E/F compared to the forecasted gypsum production both including and excluding the effect of the expected gypsum reuse by CertainTeed. These figures, as well as Figures 6-9, demonstrate that the designs for the timing and volume of capacity additions for each of the cases considered are reasonable compared the forecasted CCP production.

Figure 4: Long-Term Needs Assessment – Case 14/28, Landfill M

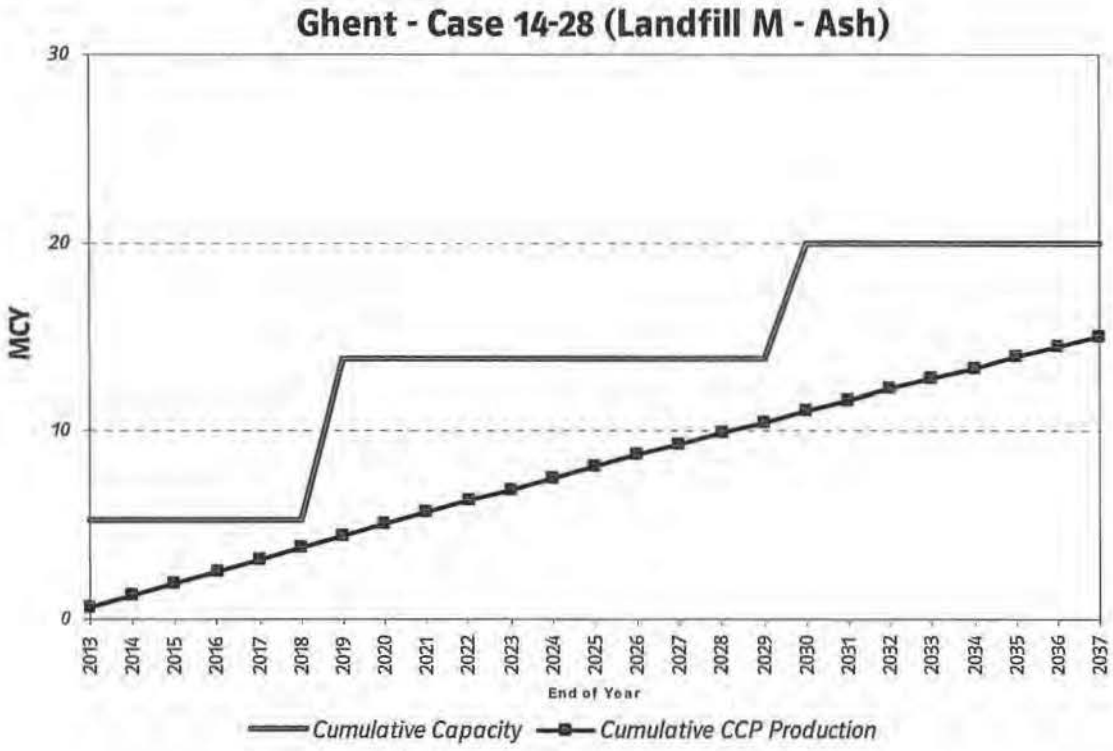
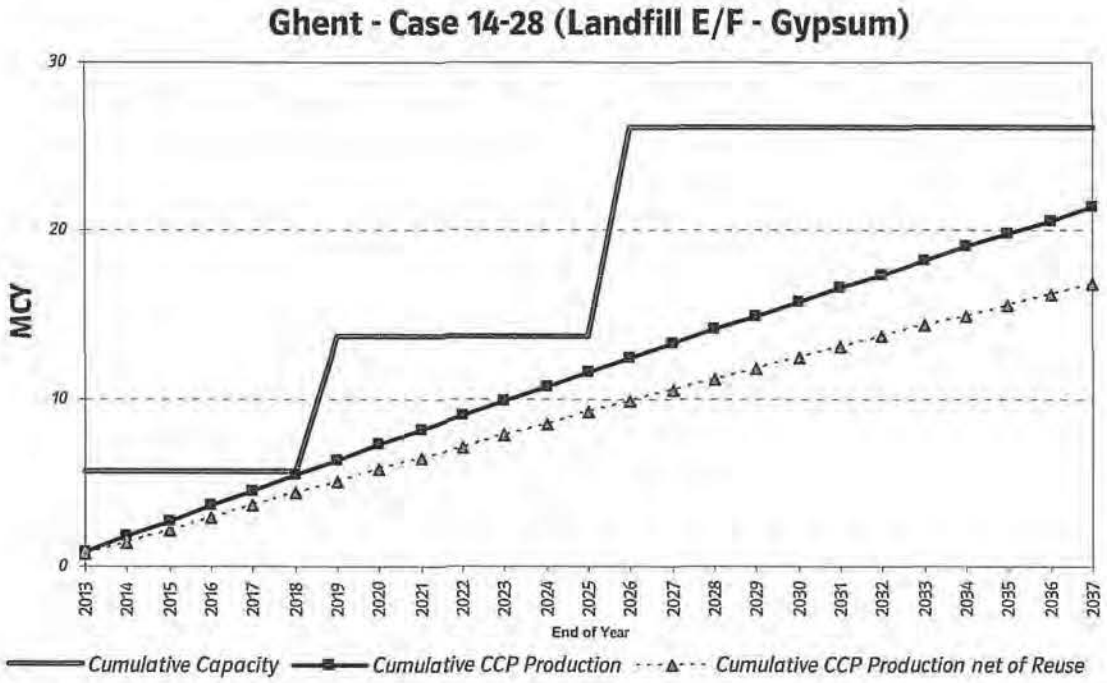
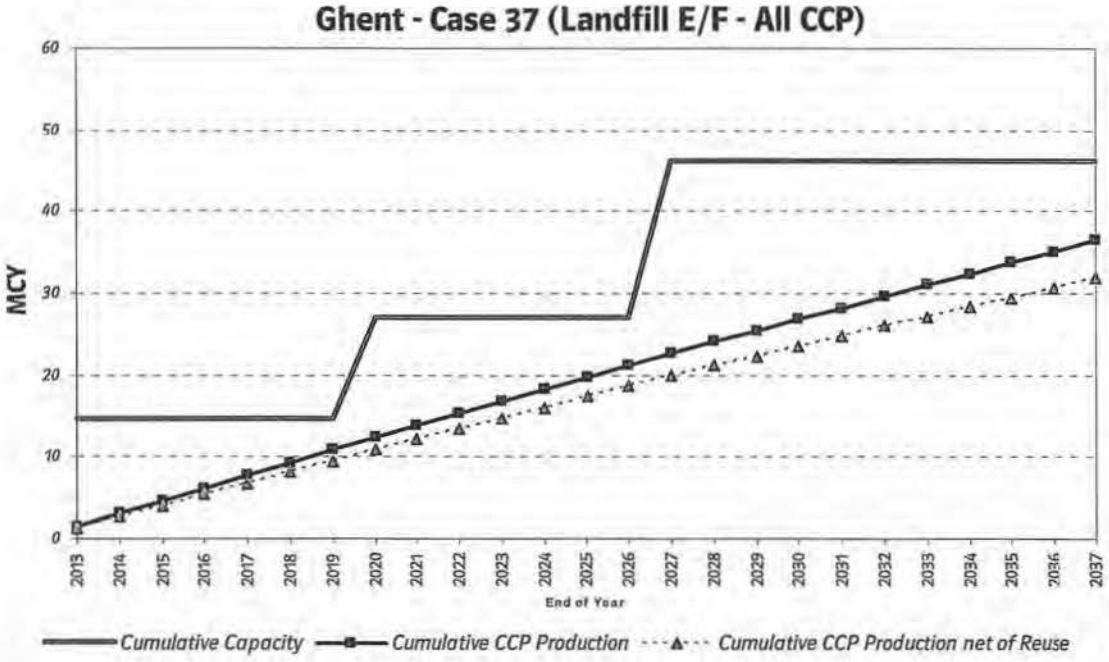


Figure 5: Long-Term Needs Assessment – Case 14/28, Landfill E/F



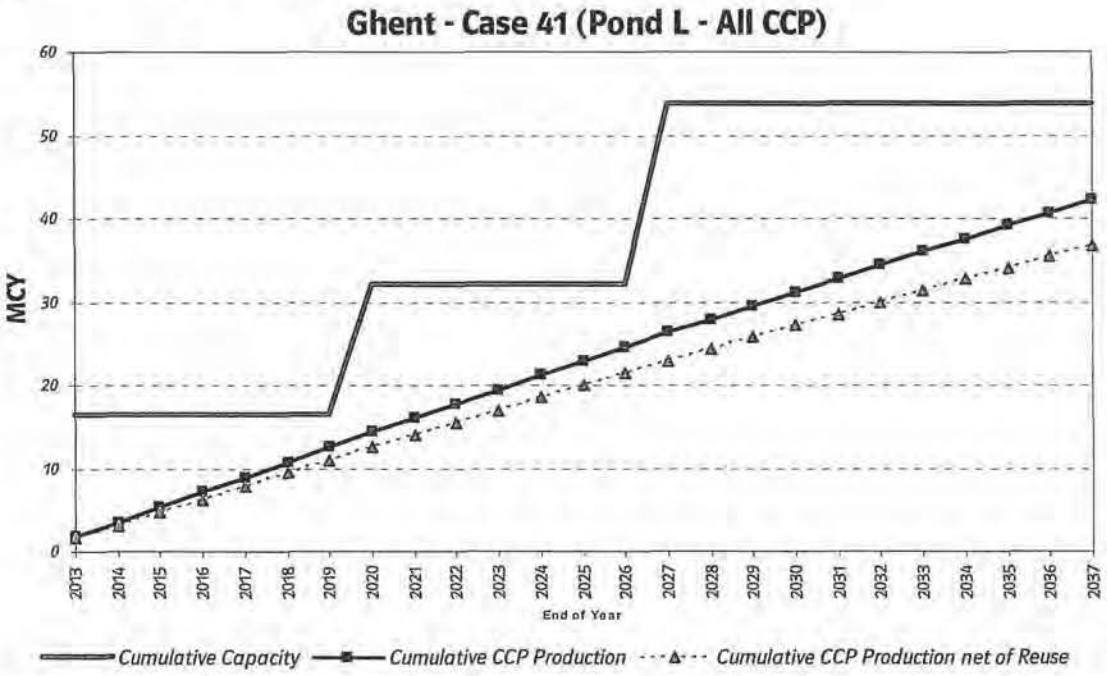
Case 37. Case 37 consists of a single landfill for both ash and gypsum at Site E/F. The construction schedule consists of three phases beginning in 2010 and ending in 2026. Figure 6 shows the phased cumulative design capacity of this landfill compared to the forecasted cumulative CCP production both including and excluding the effect of the expected gypsum reuse by CertainTeed.

Figure 6: Long-Term Needs Assessment – Case 37, Landfill E/F



Case 41. Case 41 consists of a single pond for both ash and gypsum at Site L. The construction schedule consists of three phases beginning in 2010 and ending in 2027. Figure 7 shows the phased cumulative design capacity of this landfill compared to the forecasted cumulative CCP production both including and excluding the effect of the expected gypsum reuse by CertainTeed.

Figure 7: Long-Term Needs Assessment – Case 41, Pond L



Case 42/28. Case 42/28 consists of a pond at "Site L" for ash and a landfill at "Site E/F" for gypsum. Construction of these facilities consists of four phases as shown beginning in 2010 and the final phase ending in 2029. Figure 8 shows the phased cumulative design capacity of the pond at Site L compared to the forecasted ash production. Figure 9 shows the phased cumulative design capacity of the landfill at Site E/F compared to the forecasted gypsum production both including and excluding the effect of the expected gypsum reuse by CertainTeed.

Figure 8: Long-Term Needs Assessment – Case 42/28, Pond L

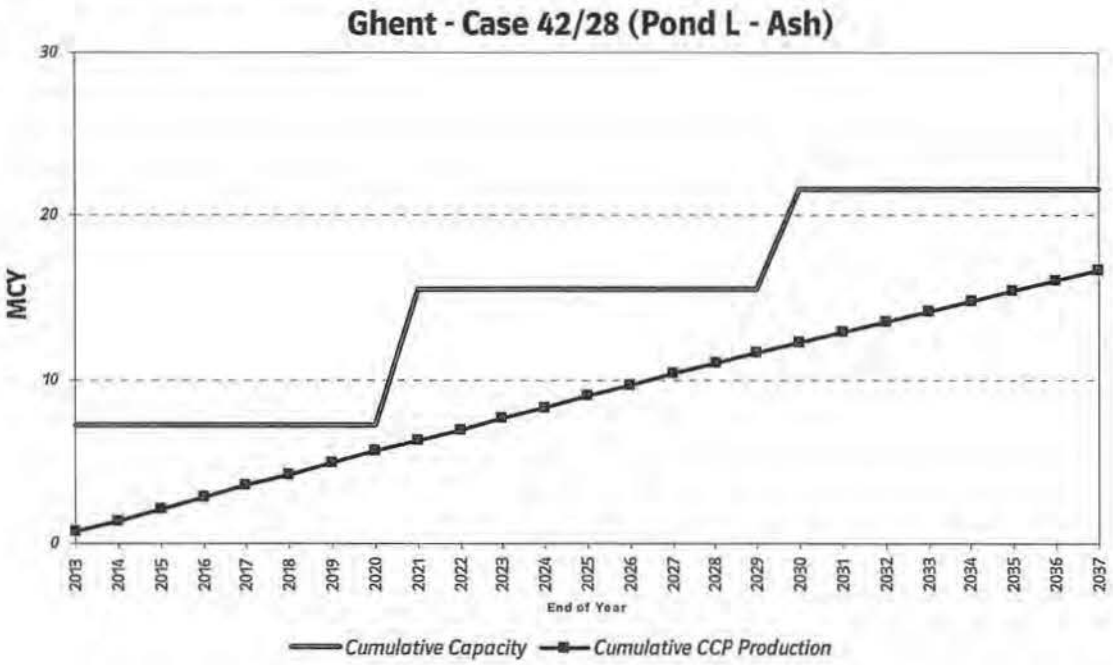
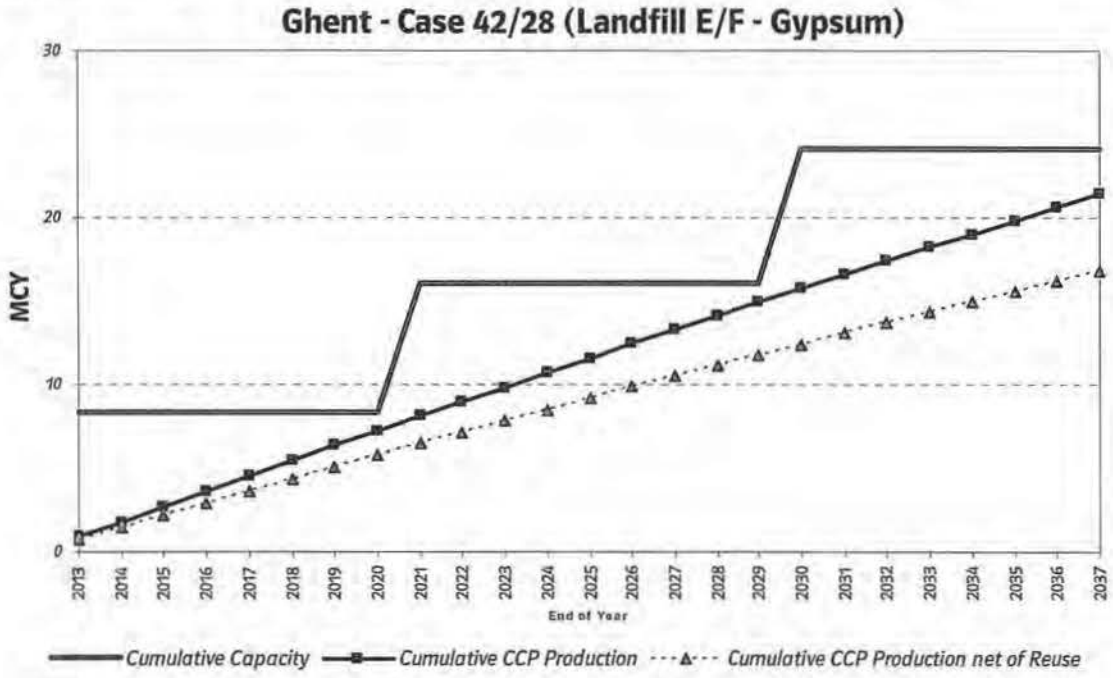


Figure 9: Long-Term Needs Assessment – Case 42/28, Landfill E/F



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6. Comparison of Alternatives

6.1 Short-Term Disposal

The short term disposal analysis compares the cost of a beneficial reuse initiative with Trans Ash to the cost of off-site landfill disposal. The Trans Ash proposal is to move 1.3 MCY in 2010 through 2012 and the plan for off-site landfill disposal is to move 0.6 MCY in 2012. Both of these options consist only of O&M costs, with no additional capital expenditure. As seen in Table 5, the Trans Ash proposal is the least-cost option to meet the short term capacity needs at Ghent. On a cost per volume basis, the Trans Ash option is almost 80% less costly than the off-site landfill option. Also, despite the higher volume requirement, the Trans Ash proposal's PVRR is $9.8 million lower than the off-site landfill alternative.

Table 5: PVRR Analysis Summary of Short-Term Alternatives

	Trans Ash Beneficial Reuse	**Off-site Landfill Disposal**
Total Quantity *(MCY)*	1.3	0.6
PVRR *(2009 million $)*		
Delta to Least Cost Case	*Least Cost*	*9.8*
Unit Cost *(2009 PVRR $/cubic yard)*		

6.2 Long-Term Storage

The long-term storage evaluation (Table 6) compares the PVRR and per-unit cost of four on-site storage alternatives selected in the engineering studies, in addition to disposal in an off-site commercial landfill. The financial assumptions related to the analysis of these cases are shown in Appendix 1, the projected cash flows are shown in Appendix 2, and the annual revenue requirements are detailed in Appendix 3.

The following is a brief comparison of the results:

Case 37. Case 37 consists of a common on-site landfill for both ash and gypsum. This is least cost on a PVRR basis by $26 million. This option is also lowest cost on a per unit volume basis at PVRR per cubic yard. The favorable capital profile of this project results from the single landfill approach compared to Case 14/28, which includes separate landfills for ash and gypsum.

Case 14/28. Case 14/28 consists of separate landfills for ash and gypsum and involves higher up-front capital costs ($34 million higher through 2017, $6 million of which is due to transmission expenditures), an accelerated timeline for the addition of subsequent phases, and an additional construction phase compared to Case 37. This is partially offset by slightly lower annual O&M costs due to reduced distances for transporting ash. In summary, the lower costs associated with the shorter transport distances are overcome by the additional costs of the two landfills.

Cases 41 and Case 42/28. Case 41 consists of a single pond for both ash and gypsum and Case 42/28 consists of an ash pond and a gypsum landfill. The construction of an ash

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pond is significantly more capital intensive compared to a landfill, although the ongoing operation is less costly. Through 2016, both of these cases are approximately $95 million higher in total capital costs than Case 37. Construction of the second and third phases increases the capital premium to $850 million for Case 41 and $350 for Case 42/28. Inclusion of the pond closure costs in 2038 raises these figures to $1,145 million and $475 million for Cases 41 and 42/28, respectively. Although the O&M is significantly lower for these cases compared to Case 37, it is not enough to offset the effect of the higher initial capital expenditures.

Off-site landfill. The off-site landfill option consists only of O&M costs, but this option is the highest-cost alternative due to the high unit cost of off-site landfill disposal, which is approximately [redacted] PVRR per cubic yard.

Beneficial Reuse. KU will evaluate beneficial reuse opportunities as they arise, and will pursue proposals that are favorable to on-site disposal.

Table 6: PVRR Analysis Summary of Long-Term Alternatives
(2009 PVRR million $)

Case	**14/28**	**37**	**41**	**42/28**	**Off-Site Landfill**
PVRR					
Capital	[redacted]				
O&M					
Total					
Delta to Least Cost Case	*26*	*Least Cost*	*254*	*125*	*413*
Capacity *(MCY)*	46.1	46.1	53.6	48.3	46.1
Unit Cost *(2009 PVRR $/CY)*	[redacted]				

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7. Recommendations

The needs assessment demonstrates a need for additional CCP storage capacity at the Ghent station by 2012. Analysis of the options provided by Project Engineering demonstrates that the most favorable alternatives to meet Ghent's CCP storage needs are:

- Short-term: the proposal for beneficial reuse of 1.3 MCY of gypsum by Trans Ash in 2010 through 2012. The PVRR is [redacted] million, or [redacted] per cubic yard.
- Long-term: constructing the first phase of an on-site landfill to store both ash and gypsum, to be in-service in 2013. The PVRR is [redacted] million, comprised of [redacted] million capital and [redacted] million O&M.

The short-term solution utilizing beneficial reuse is almost 80% less on a per unit of volume basis than disposal at an off-site commercial landfill. The unit cost of this short-term recommendation is also lower than the unit cost of the recommended long-term on-site landfill. The long-term solution includes the construction of a single landfill and is 4% less on a PVRR basis than the dual landfill option (Case 14/28).

Further details regarding the status of this project and the expected construction schedule are shown in Appendix 4.

Appendix 1

Analysis Assumptions

- Study Period: 30-year period for operational costs impacts (2009-2038)
  50-year period for capital costs impacts (2009 through tax life of final project phase).

  The revenue requirements associated with capital costs are determined via the Capital Expenditure and Recovery module of the Strategist production and capital costing software. To completely account for capital projects costs over their lifetime, the revenue requirements associated with new capital projects were included beyond the operational study period through the end of their tax life.

- Capital and O&M costs associated with the addition of new environmental projects will be subject to recovery through the Environmental Cost Recovery ("ECR") mechanism. O&M costs for electrical power usage required to operate equipment related to CCP storage are included when comparing alternatives (noted as "Power" in Appendix 2) but are not included as recoverable costs for calculation of ECR billing factors.

- Financial data
  - Discount rate: 7.81%
  - Income tax rate: 38.9%
  - Insurance rate: 0.07%
  - Property tax rate: 0.15 %
  - Percentage of debt in capital structure: 47.01%
  - Debt interest rate/weighted cost of debt: 4.64%
  - Return on equity: 10.63%
  - Book life - average landfill phase (non-transmission): 12 years
  - Book life – transmission (line relocation): 40 years
  - Tax life: 20 years
  - Annual capital and O&M escalation rate: 6%
  - Contingency included in cost estimates: ~28%
  - E.ON US overhead included in capital costs 3.5%
  - Capital expenditures are assumed to occur at year end.

- CCP data
  - Coal ash content: 11.5%
  - Coal SO_2 content: ~5.9 lb/mmBTU
  - Coal heat content: 22.16 mmBTU/ton
  - FGD removal efficiency:
    Units 1, 3, 4 98%
    Unit 2 (currently Unit 1) 94.3%

Appendix 2

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Projected Cash Flows

Annual Cash Flows Short-Term Options O&M Only *($ thousands)*		
Case	**Beneficial Reuse**	**Off-Site Landfill**
2008	[redacted]	
2009		
2010		
2011		
2012		
2013+		
Total		

$ thousands

Case **14/28** **2 landfills**

	Annual Cash Flows										
	Capital						**O&M**				**Total**
	Phase1	Phase2	Phase3	Phase4	Transmission	**Total Capital**	Non-Power	Power	Trans Ash	**Total O&M**	
2008	[redacted]										
2009											
2010											
2011											
2012											
2013											
2014											
2015											
2016											
2017											
2018											
2019											
2020											
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2030											
2031											
2032											
2033											
2034											
2035											
2036											
2037											
2038											
Total											

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$ thousands

Case 37 1 landfill

	Annual Cash Flows										
	Capital						O&M				Total
	Phase1	Phase2	Phase3	Phase4	Transmission	Total Capital	Non-Power	Power	Trans Ash	Total O&M	
2008											
2009											
2010											
2011											
2012											
2013											
2014											
2015											
2016											
2017											
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2032											
2033											
2034											
2035											
2036											
2037											
2038											
Total											

CCP Plan for Ghent Station
June 2009
Appendix 2 – Projected Cash Flows

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$ thousands

Case 41 1 pond

	Annual Cash Flows										
	Capital						O&M				Total
	Phase1	Phase2	Phase3	Phase4	Transmission	**Total Capital**	Non-Power	Power	Trans Ash	**Total O&M**	
2008	[redacted]										
2009											
2010											
2011											
2012											
2013											
2014											
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2032											
2033											
2034											
2035											
2036											
2037											
2038											
Total											

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$ thousands

Case 42/28 1 pond/1 landfill

	Annual Cash Flows										
	Capital						O&M				Total
	Phase1	Phase2	Phase3	Phase4	Transmission	Total Capital	Non-Power	Power	Trans Ash	Total O&M	
2008	[redacted]										
2009											
2010											
2011											
2012											
2013											
2014											
2015											
2016											
2017											
2018											
2019											
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2033											
2034											
2035											
2036											
2037											
2038											
Total											

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$ thousands

Case	Off-Site Landfill (O&M Only)		
	Capital	O&M	
Cost Escalation		6%	2%
2008			
2009			
2010			
2011			
2012			
2013			
2014			
2015			
2016			
2017			
2018			
2019			
2020			
2021			
2022			
2023			
2024			
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2027			
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2029			
2030			
2031			
2032			
2033			
2034			
2035			
2036			
2037			
2038			
Total			

Appendix 3

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Revenue Requirements Detail

$ thousands

Case **Short-Term Beneficial Reuse (O&M Only)**

	Capital	O&M
2008	[redacted]	
2009		
2010		
2011		
2012		
2013+		
2009 PVRR		

$ thousands

Case **Short-Term Off-Site Landfill (O&M Only)**

	Capital	O&M
2008	[redacted]	
2009		
2010		
2011		
2012		
2013+		
2009 PVRR		

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$ thousands

Case 14/28 2 landfills

	Annual Revenue Requirements										
	Capital						O&M				Total
	Phase1	Phase2	Phase3	Phase4	Transmission	Total Capital	Non-Power	Power	Trans Ash	Total O&M	
2009											
2010											
2011											
2012											
2013											
2014											
2015											
2016											
2017											
2018											
2019											
2020											
2021											
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2056											
2057											
2058											
2009 PVRR											

CONFIDENTIAL INFORMATION REDACTED

$ thousands

Case 37 1 landfill

	Annual Revenue Requirements										
	Capital						O&M				Total
	Phase1	Phase2	Phase3	Phase4	Transmission	Total Capital	Non-Power	Power	Trans Ash	Total O&M	
2009											
2010											
2011											
2012											
2013											
2014											
2015											
2016											
2017											
2018											
2019											
2020											
2021											
2022											
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2050											
2051											
2052											
2053											
2054											
2055											
2056											
2057											
2058											
2009 PVRR											

CONFIDENTIAL INFORMATION REDACTED

$ thousands

Case 41 1 pond

	Annual Revenue Requirements										
	Capital						O&M				Total
	Phase1	Phase2	Phase3	Phase4	Transmission	Total Capital	Non-Power	Power	Trans Ash	Total O&M	
2009	[redacted]										
2010											
2011											
2012											
2013											
2014											
2015											
2016											
2017											
2018											
2019											
2020											
2021											
2022											
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2049											
2050											
2051											
2052											
2053											
2054											
2055											
2056											
2057											
2058											
2009 PVRR											

CONFIDENTIAL INFORMATION REDACTED

$ thousands

Case 42/28 1 pond/1 landfill

	Annual Revenue Requirements										
	Capital						O&M				Total
	Phase1	Phase2	Phase3	Phase4	Transmission	Total Capital	Non-Power	Power	Trans Ash	Total O&M	
2009	[redacted]										
2010											
2011											
2012											
2013											
2014											
2015											
2016											
2017											
2018											
2019											
2020											
2021											
2022											
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2051											
2052											
2053											
2054											
2055											
2056											
2057											
2058											
2009 PVRR											

CONFIDENTIAL INFORMATION REDACTED

Case **Off-Site Landfill (O&M Only)**

$ thousands

using 6% cost escalation

	Capital	O&M
2008	[redacted]	
2009		
2010		
2011		
2012		
2013		
2014		
2015		
2016		
2017		
2018		
2019		
2020		
2021		
2022		
2023		
2024		
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2026		
2027		
2028		
2029		
2030		
2031		
2032		
2033		
2034		
2035		
2036		
2037		
2038		
2009 PVRR		

using 2% cost escalation

	Capital	O&M
2008	[redacted]	
2009		
2010		
2011		
2012		
2013		
2014		
2015		
2016		
2017		
2018		
2019		
2020		
2021		
2022		
2023		
2024		
2025		
2026		
2027		
2028		
2029		
2030		
2031		
2032		
2033		
2034		
2035		
2036		
2037		
2038		
2009 PVRR		

Appendix 4

Project Status *(As of April 2009)*

Detailed Design

The detailed design phase for Case 37 is currently in progress. Meetings are being conducted with the E.ON U.S. property appraiser and the individual owners of properties within the boundaries of Site F. After obtaining approval from these property owners, geotechnical, archaeological, ecological, and historical structures studies have begun. This will allow for the completion of the detailed engineering design and the start of the development of the permits for this location. The permits are expected to be submitted by the end of 2009.

Construction Schedule

The preliminary design for the landfill is to develop it in three distinct phases. This detail as well as the closure plan for each phase will be further developed in the detailed design phase. The current schedule is shown in Table A4-1.

Table A4-1: Preliminary Construction Schedule

Task	Schedule
Property acquisition	3rd Quarter 2009
Begin first phase landfill development	2nd Quarter 2010
Finish first phase landfill development	4th Quarter 2014
Begin second phase landfill development	2nd Quarter 2018
Finish second phase landfill development	4th Quarter 2019
Begin third phase landfill development	2nd Quarter 2024
Finish third phase landfill development	4th Quarter 2026

The risks associated with the project include the following:

- Inability to reach a settlement on purchase price for one or more of the properties required for the site, resulting in lengthy eminent domain litigation
- Discovery of unknown geotechnical issues
- Litigation and intervention of the 401/404 permits for Sites E/F could delay the construction of this section of the work
- Failure of major components during start-up
- Unseasonable weather, such as exceptionally heavy rainfall, late spring, early on-set of winter, etc.
- Engineering design failure of a component of design
- Contractor delays due to shortage of materials or manpower issues
- Change in regulations

EXHIBIT B

Revenue Requirements Summary
2009 Amended Plan - KU

		2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Project 30	**Ghent Landfill - Phase I**										
	Revenue Requirement										
	Eligible Plant	4,321,671	46,476,848	105,485,803	177,577,356	191,133,916	201,941,953	202,576,976	203,254,220	203,969,979	203,969,979
	Less: Retired Plant	-	-	-	-	-	-	-	-	-	-
	Less: Accumulated Depreciation	-	-	-	-	(5,110,443)	(10,744,624)	(16,396,577)	(22,067,370)	(27,758,132)	(33,448,895)
	Plus: Accumulated Depreciation on retired plant	-	-	-	-	-	-	-	-	-	-
	Less: Deferred Tax Balance	-	-	-	-	(732,114)	(3,915,287)	(6,717,731)	(9,167,625)	(11,289,716)	(13,100,909)
	Plus: Deferred Tax Balance on retired plant	-	-	-	-	-	-	-	-	-	-
	Environmental Compliance Rate Base	4,321,671	46,476,848	105,485,803	177,577,356	185,291,361	187,282,042	179,464,668	172,019,025	164,922,131	157,420,175
	Rate of return	11.12%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
		$ 480,509	$ 5,098,393	$ 11,571,030	$ 19,478,952	$ 20,325,122	$ 20,543,496	$ 19,685,976	$ 18,869,243	$ 18,090,765	$ 17,267,855
	Operating expenses	84,800	121,349	128,630	136,348	19,003,308	20,143,507	21,352,117	22,633,244	23,991,239	25,430,713
	Annual Depreciation expense	-	-	-	-	5,110,443	5,634,180	5,651,953	5,670,793	5,690,762	5,690,762
	Less depreciation on retired plant	-	-	-	-	-	-	-	-	-	-
	Annual Property Tax expense	-	6,483	69,716	158,229	266,366	279,035	286,796	279,274	271,780	264,318
	Total OE	$ 84,800	$ 127,832	$ 198,346	$ 294,577	$ 24,380,117	$ 26,056,723	$ 27,290,866	$ 28,583,310	$ 29,953,782	$ 31,385,793
	Total E(m)	565,309	5,226,225	11,769,376	19,773,528	44,705,239	46,600,208	46,976,843	47,452,553	48,044,547	48,653,648

EXHIBIT C

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

THE APPLICATION OF KENTUCKY UTILITIES COMPANY FOR A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY AND APPROVAL OF ITS 2009 COMPLIANCE PLAN FOR RECOVERY BY ENVIRONMENTAL SURCHARGE	))))))	CASE NO. 2009-00197

DIRECT TESTIMONY OF
JOHN N. VOYLES, JR.
VICE PRESIDENT, TRANSMISSION AND GENERATION SERVICES
KENTUCKY UTILITIES COMPANY

Filed: June 26, 2009

contain sufficient capacity for bottom ash storage for approximately 30 years. The Main Pond will have approximately six (6) years of projected remaining capacity after elevation 912 feet is completed in 2012.

Exhibit JNV-8 is a conceptual design report for the Brown station ash treatment basin, prepared by the Fuller Mossbarger Scott and May engineering firm. Exhibit JNV-9 is a preliminary design report for the Brown station ash treatment basin, also prepared by Fuller Mossbarger Scott and May engineering firm. Exhibits JNV-8 and JNV-9 are on the compact disc included with this testimony and provide more details associated with this project.

Q. Is this project a cost-effective means of complying with environmental regulations and permits?

A. Yes, this project allows KU to continue to comply with all applicable environmental regulations. As first demonstrated in Case No. 2004-00426, and consistent with the 2006 ECR Update made to the Commission staff, the phased approach to the construction of the ash treatment basins continues to be the least-cost approach to manage CCP at the Brown station. As detailed in the testimony of Mr. Schram, high costs continue to preclude cost effective off-site alternatives.

Project 30 – Ghent Station Landfill

Q. Please describe the new landfill at the Ghent Station (Project 30), the anticipated cost and the associated timeline.

A. Project 30 consists of the first phase (Phase I) of a three phase, new landfill construction project at the Ghent station for continued on-site management of CCP. Completion of this project requires the procurement of approximately 350 acres of

land and relocation of approximately 2,500 linear feet of transmission line, existing underground utilities and a small cemetery (currently known to contain six burial plots). The project includes a transport system for the CCP material and the installation of a leachate collection/sediment retention pond. Phase I is expected to cost approximately $204 million with a total project capital cost (Phases I-III) estimated to be approximately $360 million. Phase I construction is expected to take 18-24 months to complete and is expected to be in-service by 2013.

Of the two existing on-site ash treatment basins, Basin #2 is currently the only operational basin at the Ghent station. Basin #1 reached its maximum desired capacity in 1995. Basin #2 was put into service in 1995 with a storage capacity of 2,580 acre-feet. In Case No. 2002-00208, KU advised the Commission that Basin #2 would be constructed in two phases. Detailed bids indicated that the two phase construction to elevation 800 feet had a projected total cost of $25.9 million (2002 dollars), while construction to 800 feet in one project had a total cost of $17.3 million. To take advantage of this significant cost savings, KU modified the construction project and undertook a single project to elevate the dike to 800 feet. As mentioned in Exhibit CRS-3 of Mr. Schram's testimony (the Coal Combustion Byproduct Plan for the Ghent station), vertical expansion of Basin #2 beyond 800 feet at Ghent was determined to be cost prohibitive.

Project 30 (Phase I of the proposed new landfill at the Ghent generating station) includes the following scope of work:

1. **Initial Siting Study** (Completed) – This phase evaluated various CCP storage locations on existing Ghent property and the area surrounding the plant. Initially, 42 landfill and impoundment scenarios were evaluated during this study.

2. **Conceptual Design** (Completed) – This phase took the results of the Initial Siting Study and developed 5 storage alternatives and provided scope of work estimates and net present value evaluations. Based on this data the best storage alternative was chosen, Case #37 – Single 25 year, landfill located on both existing plant and non-plant property.

3. **Final Design** (In Progress) – This phase will design and permit Case #37. Work in this phase will include the landfill design/permitting, wetlands/stream mitigation, transmission/distribution line relocation design, various environmental studies, etc. The goal of this phase is to obtain the construction permits, develop Issued for Construction drawings and specifications for all phases, as well as develop the landfill O&M manual.

4. **Phase I Construction** – Once the Certificate of Public Convenience and Necessity ("CPCN") and the permits have been received, a contractor will be chosen to perform the following (this is a high level list of activities):

- Mobilization
- Clearing and grubbing of the landfill and borrow areas
- Construction of stormwater/sediment ponds
- Grade work to attain the proper subgrade of the landfill
- Development of the borrow site(s)
- Installation of the liner system
- Installation of the leachate collection system, ponds, as well as the transfer system
- Construction of new site access roads
- Installation of the gypsum fines systems
- Construction of the CCP transfer storage facility across US-42
- Installation of the pipe conveyor
- Construction of the Gypsum Dewatering facility
- Upgrades to existing CCP transfer systems
- De-mobilization

Exhibit JNV-10 consists of two GAI Consultants reports on the initial siting study and conceptual design of the Ghent station landfill and is on the compact disc included with this testimony. Exhibit JNV-10 provides more details associated with this project.

Q. Is KU requesting a CPCN for the proposed landfill at Ghent (Project 30)?

A. Yes, as discussed in the testimony of Mr. Bellar, KU is requesting a CPCN for Project 30 in Exhibit JNV-1. Project 30 is associated with the construction of a new landfill and supporting systems at the Ghent station.

Q. Why is KU seeking a CPCN for Project 30, the proposed Ghent landfill at this time?

A. As discussed in Exhibit CRS-3 of Mr. Schram's testimony, KU's Ghent station produces three (3) coal combustion byproducts: bottom ash, fly ash and gypsum. The station has two (2) existing on-site treatment basins for ash and two (2) stacking areas for gypsum. Basin #1 is at its maximum desired capacity. As discussed in Exhibit CRS-3, Basin #2 and the gypsum stack facilities are both forecasted to reach their maximum desired capacity in 2012. In accordance with the CCP Strategy and the analysis presented in Mr. Schram's testimony, the recommended long-term CCP management alternative is Project 30, a landfill for all CCP material. The preliminary construction schedule for this project requires construction of the landfill to begin in 2010. As such, KU is requesting a CPCN in support of this project.

Q. What alternatives to the proposed project were evaluated?

A. The Initial Siting Study identified 42 potential alternatives based on combinations of variables including

- storage and CCP transport methods

- site locations
- transmission line relocation needs

Consistent with the CCP Strategy, opportunities for beneficial reuse were also evaluated by the Companies. The beneficial reuse alternatives at Ghent are discussed in Project 33. Mr. Schram's testimony provides details associated with the evaluation of the alternatives at Ghent.

Q. Is the proposed new on-site landfill at Ghent (Project 30) consistent with the Companies' strategy for long-term management of CCP?

A. Yes. The landfill ensures adequate on-site CCP management capacity exists for the long-term and will be constructed in multiple phases. Furthermore, as discussed in Mr. Schram's testimony, analytical assessments have been performed to identify and utilize any cost effective beneficial reuse alternatives in order to minimize environmental impact and promote environmental stewardship.

Q. Is this project a cost-effective means of complying with environmental regulations and permits?

A. Yes. Project 30 provides the best means of compliance with discharge and water quality regulations. Mr. Schram's testimony provides details associated with the economics of this project.

Project 31 -- Trimble County Station
Ash Treatment Basin and Gypsum Storage Pond

Q. Please describe the Trimble County Station Ash Treatment Basin and Gypsum Storage Pond (Project 31), the anticipated cost and the associated timeline.

A. The primary CCP managed at the Trimble County station are bottom ash, fly ash and gypsum, all of which are currently managed either through treatment in the 85 acre

EXHIBIT D

Revenue Requirments Summary
Gypsum Disposal at Sterling Materials

			2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Revenue Requirement													
Eligible Plant			$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 203,254,220	$ 203,969,979	$ 203,969,979	$ 248,969,979
Less Gypsum Plant			$ -	$ (14,090,000)	$ (40,060,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (98,110,000)
Revised Eligible Plant			$ 4,321,671	$ 32,388,846	$ 65,425,803	$ 124,467,356	$ 138,023,918	$ 148,831,953	$ 149,468,976	$ 150,144,220	$ 150,859,979	$ 150,859,979	$ 150,859,979
Less Accumulated Depreciation							$ (3,690,414)	$ (7,842,826)	$ (12,013,010)	$ (16,202,034)	$ (20,411,027)	$ (24,620,020)	$ (28,829,013)
Less Deferred Tax Balance							$ (528,683)	$ (2,857,926)	$ (4,921,730)	$ (6,731,945)	$ (8,301,165)	$ (9,641,200)	$ (11,289,441)
Environmental Compliance Rate Base			$ 4,321,671	$ 32,388,846	$ 65,425,803	$ 124,467,356	$ 133,804,821	$ 138,131,202	$ 132,534,236	$ 127,210,241	$ 122,147,788	$ 116,598,759	$ 110,741,525
Rate of Return			11.1%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
Assumed Tons (1.155)	1,000,000		$ 480,509	$ 3,553,056	$ 7,177,211	$ 13,654,069	$ 14,678,389	$ 15,152,993	$ 14,539,006	$ 13,954,963	$ 13,399,612	$ 12,790,884	$ 12,148,345
86.7500% Cubic yards	867,500												
Operating Expenses			$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,556
less Gypsum to On-site Landfill							$ (8,887,032)	$ (9,420,254)	$ (9,985,469)	$ (10,584,598)	$ (11,219,674)	$ (11,892,854)	$ (12,606,425)
Gypsum to Sterling	**$ 10.50**						$ 10,500,000	$ 11,130,000	$ 11,797,800	$ 12,505,668	$ 13,256,008	$ 14,051,369	$ 14,894,451
Net Operating			$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 20,616,276	$ 21,853,253	$ 23,164,448	$ 24,554,314	$ 26,027,573	$ 27,589,228	$ 29,244,581
Annual Depreciation							$ 3,690,414	$ 4,152,411	$ 4,170,184	$ 4,189,024	$ 4,208,993	$ 4,208,993	$ 4,208,993
Annual Property Tax Expense				$ 6,483	$ 69,718	$ 158,229	$ 266,366	$ 279,017	$ 286,798	$ 279,274	$ 271,751	$ 264,317	$ 264,317
Total OE			$ 84,800	$ 127,832	$ 198,348	$ 294,577	$ 24,573,056	$ 26,284,681	$ 27,621,430	$ 29,022,612	$ 30,508,317	$ 32,062,537	$ 33,717,891
Total E(m) Gypsum to Sterling		$ 476,298,826	$ 565,309	$ 3,680,888	$ 7,375,559	$ 13,948,646	$ 39,251,445	$ 41,437,674	$ 42,160,436	$ 42,977,575	$ 43,907,929	$ 44,853,421	$ 45,866,236
Total E(m) - Project 30 (See below)		$ 555,782,375	$ 565,309	$ 5,226,225	$ 11,769,378	$ 19,773,528	$ 44,705,239	$ 46,600,208	$ 46,976,843	$ 47,458,553	$ 48,044,547	$ 48,653,648	$ 55,312,476
Difference **PVRR**	**7.81%**	**$ (79,483,549)**	$ -	$ (1,545,337)	$ (4,393,819)	$ (5,824,882)	$ (5,453,794)	$ (5,162,534)	$ (4,816,407)	$ (4,480,978)	$ (4,136,618)	$ (3,800,227)	$ (9,446,240)
Date			12/31/2009	12/31/2010	12/31/2011	12/31/2012	12/31/2013	12/31/2014	12/31/2015	12/31/2016	12/31/2017	12/31/2018	12/31/2019

Revenue Requirments Summary
2009 Amended Plan
Project 30 Ghent Landfill Phase I
See Exhibit B

			2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
													Start Phase II
Revenue Requirement													$ 40,000,000
Eligible Plant			$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 203,254,220	$ 203,969,979	$ 203,969,979	$ 248,969,979
Less Gypsum Plant			$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Revised Eligible Plant			$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 203,254,220	$ 203,969,979	$ 203,969,979	$ 248,969,979
Less Accumulated Depreciation							$ (5,110,443)	$ (10,744,623)	$ (16,396,576)	$ (22,067,369)	$ (27,758,131)	$ (33,448,893)	$ (40,395,155)
Less Deferred Tax Balance							$ (732,114)	$ (3,915,341)	$ (6,717,677)	$ (9,168,992)	$ (11,289,232)	$ (13,098,586)	$ (15,818,743)
Environmental Compliance Rate Base			$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 185,291,361	$ 187,281,989	$ 179,464,723	$ 172,017,859	$ 164,922,616	$ 157,422,500	$ 192,756,081
Rate of Return			11.1%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
			$ 480,509	$ 5,098,729	$ 11,571,793	$ 19,480,236	$ 20,326,462	$ 20,544,834	$ 19,687,280	$ 18,870,359	$ 18,092,011	$ 17,269,248	$ 21,145,342
Operating Expenses			$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,555.78
less Gypsum to On-site Landfill							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Gypsum to Sterling							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Net Operating			$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,556
Annual Depreciation							$ 5,110,443	$ 5,634,180	$ 5,651,953	$ 5,670,793	$ 5,690,762	$ 5,690,762	$ 6,946,262
Annual Property Tax Expense				$ 6,483	$ 69,718	$ 158,229	$ 266,366	$ 279,017	$ 286,798	$ 279,274	$ 271,751	$ 264,317	$ 264,317
Total OE			$ 84,800	$ 127,832	$ 198,348	$ 294,577	$ 24,380,117	$ 26,056,704	$ 27,290,868	$ 28,583,311	$ 29,953,752	$ 31,385,792	$ 34,167,134
Total E(m) Gypsum to On-site Landfill as Calculated			$ 565,309	$ 5,226,561	$ 11,770,141	$ 19,774,813	$ 44,706,579	$ 46,601,539	$ 46,978,148	$ 47,453,670	$ 48,045,763	$ 48,655,040	$ 55,312,476
Total E(m) Gypsum to On-site Landfill per KU			$ 565,309	$ 5,226,225	$ 11,769,378	$ 19,773,528	$ 44,705,239	$ 46,600,208	$ 46,976,843	$ 47,458,553	$ 48,044,547	$ 48,653,648	
Calculation Check Difference			$ -	$ 336	$ 763	$ 1,285	$ 1,340	$ 1,331	$ 1,305	$ (4,883)	$ 1,216	$ 1,392	
Site E/F Hauling cost of Ash 2.25 mile round trip							$ 2,822,723	$ 2,992,086	$ 3,171,612	$ 3,361,908	$ 3,563,623	$ 3,777,440	$ 4,004,087
Haul Road Maintenance							$ 53,529	$ 56,741	$ 60,145	$ 63,754	$ 67,579	$ 71,634	$ 75,932
Total							$ 2,876,252	$ 3,048,827	$ 3,231,757	$ 3,425,662	$ 3,631,202	$ 3,849,074	$ 4,080,018
Reduce by 50% for Site M			$ -	$ -	$ -	$ -	$ 1,438,126	$ 1,524,414	$ 1,615,878	$ 1,712,831	$ 1,815,601	$ 1,924,537	$ 2,040,009
Difference **PVRR**	**7.81%**	**$ (21,865,903)**											

Revenue Requirments Summary
Gypsum Disposal at Sterling Materials

			2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
													Start Phase II
Revenue Requirement													$ 40,000,000
Eligible Plant			$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 323,969,979	$ 353,969,979	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
Less Gypsum Plant			$ (133,110,000)	$ (133,110,000)	$ (133,110,000)	$ (133,110,000)	$ (133,110,000)	$ (173,110,000)	$ (203,110,000)	$ (209,140,021)	$ (209,140,021)	$ (209,140,021)	$ (169,140,021)
Revised Eligible Plant			$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 190,859,979
Less Accumulated Depreciation			$ (33,038,006)	$ (37,246,999)	$ (41,455,992)	$ (45,664,985)	$ (49,873,978)	$ (54,082,972)	$ (58,291,965)	$ (62,500,958)	$ (66,709,951)	$ (70,918,944)	$ (76,243,937)
Less Deferred Tax Balance			$ (12,937,683)	$ (14,585,925)	$ (16,234,167)	$ (17,882,408)	$ (19,530,650)	$ (21,178,892)	$ (22,827,133)	$ (24,475,375)	$ (26,123,617)	$ (27,771,858)	$ (29,857,126)
Environmental Compliance Rate Base			$ 104,884,290	$ 99,027,055	$ 93,169,820	$ 87,312,585	$ 81,455,351	$ 75,598,116	$ 69,740,881	$ 63,883,646	$ 58,026,411	$ 52,169,177	$ 84,758,916
Rate of Return			10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
Assumed Tons (1.155)	1,000,000		$ 11,505,807	$ 10,863,268	$ 10,220,729	$ 9,578,191	$ 8,935,652	$ 8,293,113	$ 7,650,575	$ 7,008,036	$ 6,365,497	$ 5,722,959	$ 9,298,053
86.7500% Cubic yards	867,500												
Operating Expenses			$ 28,573,949	$ 30,288,386	$ 32,105,689	$ 34,032,031	$ 36,073,952	$ 38,238,390	$ 40,532,693	$ 42,964,655	$ 45,542,534	$ 48,275,086	$ 51,171,591
less Gypsum to On-site Landfill			$ (13,362,811)	$ (14,164,579)	$ (15,014,454)	$ (15,915,321)	$ (16,870,241)	$ (17,882,455)	$ (18,955,402)	$ (20,092,727)	$ (21,298,290)	$ (22,576,188)	$ (23,930,759)
Gypsum to Sterling	**$ 10.50**		$ 15,788,118	$ 16,735,405	$ 17,739,529	$ 18,803,901	$ 19,932,135	$ 21,128,063	$ 22,395,747	$ 23,739,492	$ 25,163,861	$ 26,673,693	$ 28,274,114
Net Operating			$ 30,999,256	$ 32,859,211	$ 34,830,764	$ 36,920,610	$ 39,135,847	$ 41,483,997	$ 43,973,037	$ 46,611,419	$ 49,408,105	$ 52,372,591	$ 55,514,946
Annual Depreciation			$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 5,324,993
Annual Property Tax Expense			$ 322,630	$ 367,985	$ 367,985	$ 367,985	$ 367,985	$ 367,985	$ 419,820	$ 458,696	$ 466,510	$ 466,510	$ 466,510
Total OE			$ 35,530,879	$ 37,436,190	$ 39,407,743	$ 41,497,588	$ 43,712,825	$ 46,060,976	$ 48,601,850	$ 51,279,108	$ 54,083,607	$ 57,048,094	$ 61,306,449
Total E(m) Gypsum to Sterling		$ 476,298,826	$ 47,036,686	$ 48,299,458	$ 49,628,472	$ 51,075,779	$ 52,648,477	$ 54,354,089	$ 56,252,425	$ 58,287,144	$ 60,449,105	$ 62,771,052	$ 70,604,502
Total E(m) - Project 30 (See below)		$ 555,782,375	$ 60,594,706	$ 61,145,021	$ 61,752,847	$ 62,469,712	$ 63,302,156	$ 69,590,749	$ 74,557,268	$ 76,324,534	$ 77,376,925	$ 78,576,175	$ 79,939,378
Difference **PVRR**	**7.81%**	**$ (79,483,549)**	$ (13,558,020)	$ (12,845,563)	$ (12,124,375)	$ (11,393,932)	$ (10,653,679)	$ (15,236,660)	$ (18,304,843)	$ (18,037,390)	$ (16,927,821)	$ (15,805,123)	$ (9,334,876)
Date			12/31/2020	12/31/2021	12/31/2022	12/31/2023	12/31/2024	12/31/2025	12/31/2026	12/31/2027	12/31/2028	12/31/2029	12/31/2030

Revenue Requirments Summary
2009 Amended Plan
Project 30 Ghent Landfill Phase I
See Exhibit B

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
						Start Phase III					
Revenue Requirement	$ 40,000,000					$ 40,000,000	$ 30,000,000	$ 6,030,021			
Eligible Plant	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 323,969,979	$ 353,969,979	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
Less Gypsum Plant	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Revised Eligible Plant	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 323,969,979	$ 353,969,979	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
Less Accumulated Depreciation	$ (48,317,917)	$ (56,240,679)	$ (64,163,440)	$ (72,086,202)	$ (80,008,964)	$ (89,047,726)	$ (98,923,488)	$ (108,967,487)	$ (119,011,486)	$ (129,055,485)	$ (139,099,485)
Less Deferred Tax Balance	$ (18,921,296)	$ (22,023,850)	$ (25,126,403)	$ (28,228,957)	$ (31,331,510)	$ (34,871,089)	$ (38,738,438)	$ (42,671,668)	$ (46,604,898)	$ (50,538,128)	$ (54,471,358)
Environmental Compliance Rate Base	$ 216,730,766	$ 205,705,451	$ 194,680,135	$ 183,654,820	$ 172,629,505	$ 200,051,164	$ 216,308,054	$ 208,360,845	$ 194,383,616	$ 180,406,387	$ 166,429,157
Rate of Return	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
	$ 23,775,365	$ 22,565,888	$ 21,356,411	$ 20,146,934	$ 18,937,457	$ 21,945,613	$ 23,728,993	$ 22,857,185	$ 21,323,883	$ 19,790,581	$ 18,257,279
Operating Expenses	$ 28,573,949.13	$ 30,288,386.07	$ 32,105,689.24	$ 34,032,030.59	$ 36,073,952.43	$ 38,238,389.57	$ 40,532,692.95	$ 42,964,654.53	$ 45,542,533.80	$ 48,275,085.83	$ 51,171,590.97
less Gypsum to On-site Landfill	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Gypsum to Sterling	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Net Operating	$ 28,573,949	$ 30,288,386	$ 32,105,689	$ 34,032,031	$ 36,073,952	$ 38,238,390	$ 40,532,693	$ 42,964,655	$ 45,542,534	$ 48,275,086	$ 51,171,591
Annual Depreciation	$ 7,922,762	$ 7,922,762	$ 7,922,762	$ 7,922,762	$ 7,922,762	$ 9,038,762	$ 9,875,762	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999
Annual Property Tax Expense	$ 322,630	$ 367,985	$ 367,985	$ 367,985	$ 367,985	$ 367,985	$ 419,820	$ 458,696	$ 466,510	$ 466,510	$ 466,510
Total OE	$ 36,819,341	$ 38,579,133	$ 40,396,436	$ 42,322,778	$ 44,364,700	$ 47,645,137	$ 50,828,274	$ 53,467,349	$ 56,053,043	$ 58,785,595	$ 61,682,100
Total E(m) Gypsum to On-site Landfill as Calculated	$ 60,594,706	$ 61,145,021	$ 61,752,847	$ 62,469,712	$ 63,302,156	$ 69,590,749	$ 74,557,268	$ 76,324,534	$ 77,376,925	$ 78,576,175	$ 79,939,378
Total E(m) Gypsum to On-site Landfill per KU											
Calculation Check Difference											
Site E/F Hauling cost of Ash 2.25 mile round trip	$ 4,244,332	$ 4,498,992	$ 4,768,931	$ 5,055,067	$ 5,358,371	$ 5,679,873	$ 6,020,666	$ 6,381,906	$ 6,764,820	$ 7,170,709	$ 7,600,952
Haul Road Maintenance	$ 80,488	$ 85,317	$ 90,436	$ 95,862	$ 101,614	$ 107,711	$ 114,174	$ 121,024	$ 128,285	$ 135,982	$ 144,141
Total	$ 4,324,820	$ 4,584,309	$ 4,859,367	$ 5,150,929	$ 5,459,985	$ 5,787,584	$ 6,134,839	$ 6,502,930	$ 6,893,105	$ 7,306,692	$ 7,745,093
Reduce by 50% for Site M	$ 2,162,410	$ 2,292,154	$ 2,429,684	$ 2,575,465	$ 2,729,993	$ 2,893,792	$ 3,067,420	$ 3,251,465	$ 3,446,553	$ 3,653,346	$ 3,872,547
Difference **PVRR** **7.81%** **$ (21,865,903)**											

Revenue Requirments Summary
Gypsum Disposal at Sterling Materials

			2031	2032	2033	2034	2035	2036	2037	
Revenue Requirement			$ 40,000,000							
Eligible Plant			$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	
Less Gypsum Plant			$ (129,140,021)	$ (129,140,021)	$ (129,140,021)	$ (129,140,021)	$ (129,140,021)	$ (129,140,021)	$ (129,140,021)	
Revised Eligible Plant			$ 230,859,979	$ 230,859,979	$ 230,859,979	$ 230,859,979	$ 230,859,979	$ 230,859,979	$ 230,859,979	
Less Accumulated Depreciation			$ (82,684,930)	$ (89,125,923)	$ (95,566,916)	$ (102,007,909)	$ (108,448,902)	$ (114,889,895)	$ (121,330,888)	
Less Deferred Tax Balance			$ (32,379,419)	$ (34,901,711)	$ (37,424,004)	$ (39,946,297)	$ (42,468,590)	$ (44,990,883)	$ (47,513,176)	
Environmental Compliance Rate Base			$ 115,795,631	$ 106,832,345	$ 97,869,059	$ 88,905,773	$ 79,942,487	$ 70,979,202	$ 62,015,916	
Rate of Return			10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	
Assumed	Tons (1.155)	1,000,000	$ 12,702,781	$ 11,719,508	$ 10,736,236	$ 9,752,963	$ 8,769,691	$ 7,786,418	$ 6,803,146	
86.7500%	Cubic yards	867,500								
Operating Expenses			$ 54,241,886	$ 57,496,400	$ 60,946,184	$ 64,602,955	$ 68,479,132	$ 72,587,880	$ 76,943,153	
less Gypsum to On-site Landfill			$ (25,366,604)	$ (26,888,601)	$ (28,501,917)	$ (30,212,032)	$ (32,024,754)	$ (33,946,239)	$ (35,983,013)	
Gypsum to Sterling		**$ 10.50**	$ 29,970,561	$ 31,768,795	$ 33,674,922	$ 35,695,418	$ 37,837,143	$ 40,107,371	$ 42,513,814	
Net Operating			$ 58,845,843	$ 62,376,594	$ 66,119,189	$ 70,086,341	$ 74,291,521	$ 78,749,012	$ 83,473,953	
Annual Depreciation			$ 6,440,993	$ 6,440,993	$ 6,440,993	$ 6,440,993	$ 6,440,993	$ 6,440,993	$ 6,440,993	
Annual Property Tax Expense			$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	
Total OE			$ 65,753,346	$ 69,284,096	$ 73,026,692	$ 76,993,843	$ 81,199,024	$ 85,656,515	$ 90,381,456	
Total E(m) Gypsum to Sterling		$ 476,298,826	$ 78,456,126	$ 81,003,604	$ 83,762,928	$ 86,746,807	$ 89,968,715	$ 93,442,933	$ 97,184,602	$ 1,547,998,022
Total E(m) - Project 30 (See below)		$ 555,782,375	$ 81,476,372	$ 83,197,583	$ 85,114,065	$ 87,237,534	$ 89,580,409	$ 92,155,855	$ 94,977,826	$ 1,754,455,070
Difference	**PVRR**	**7.81% $ (79,483,549)**	$ (3,020,245)	$ (2,193,978)	$ (1,351,137)	$ (490,727)	$ 388,306	$ 1,287,079	$ 2,206,776	$ (206,457,048)
Date			12/31/2031	12/31/2032	12/31/2033	12/31/2034	12/31/2035	12/31/2036	12/31/2037	
										$ (206,457,048)

Revenue Requirments Summary
2009 Amended Plan
Project 30 Ghent Landfill Phase I
See Exhibit B

			2031	2032	2033	2034	2035	2036	2037
Revenue Requirement									
Eligible Plant			$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
Less Gypsum Plant			$ -	$ -	$ -	$ -	$ -	$ -	$ -
Revised Eligible Plant			$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
Less Accumulated Depreciation			$ (149,143,484)	$ (159,187,483)	$ (169,231,482)	$ (179,275,482)	$ (189,319,481)	$ (199,363,480)	$ (209,407,479)
Less Deferred Tax Balance			$ (58,404,588)	$ (62,337,818)	$ (66,271,048)	$ (70,204,279)	$ (74,137,509)	$ (78,070,739)	$ (82,003,969)
Environmental Compliance Rate Base			$ 152,451,928	$ 138,474,699	$ 124,497,469	$ 110,520,240	$ 96,543,010	$ 82,565,781	$ 68,588,552
Rate of Return			10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
			$ 16,723,976	$ 15,190,674	$ 13,657,372	$ 12,124,070	$ 10,590,768	$ 9,057,466	$ 7,524,164
Operating Expenses			$ 54,241,886.43	$ 57,496,399.62	$ 60,946,183.60	$ 64,602,954.61	$ 68,479,131.89	$ 72,587,879.80	$ 76,943,152.59
less Gypsum to On-site Landfill			$ -	$ -	$ -	$ -	$ -	$ -	$ -
Gypsum to Sterling			$ -	$ -	$ -	$ -	$ -	$ -	$ -
Net Operating			$ 54,241,886	$ 57,496,400	$ 60,946,184	$ 64,602,955	$ 68,479,132	$ 72,587,880	$ 76,943,153
Annual Depreciation			$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999
Annual Property Tax Expense			$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510
Total OE			$ 64,752,395	$ 68,006,908	$ 71,456,692	$ 75,113,463	$ 78,989,641	$ 83,098,389	$ 87,453,661
Total E(m) Gypsum to On-site Landfill as Calculated			$ 81,476,372	$ 83,197,583	$ 85,114,065	$ 87,237,534	$ 89,580,409	$ 92,155,855	$ 94,977,826
Total E(m) Gypsum to On-site Landfill per KU									
Calculation Check Difference									
Site E/F	Hauling cost of Ash 2.25 mile round trip		$ 8,057,009	$ 8,540,429	$ 9,052,855	$ 9,596,026	$ 10,171,788	$ 10,782,095	$ 11,429,021
	Haul Road Maintenance		$ 152,790	$ 161,957	$ 171,675	$ 181,975	$ 192,894	$ 204,467	$ 216,735
Total			$ 8,209,799	$ 8,702,387	$ 9,224,530	$ 9,778,002	$ 10,364,682	$ 10,986,563	$ 11,645,756
Reduce by 50% for Site M			$ 4,104,899	$ 4,351,193	$ 4,612,265	$ 4,889,001	$ 5,182,341	$ 5,493,281	$ 5,822,878
Difference	**PVRR**	**7.81% $ (21,865,903)**							

EXHIBIT E

GHENT LANDFILL (PHASE I)

Operating & Maintenance Costs ($)	2010	2011	2012	2013	2014	2015	2016	2017
Ground Water Sampling and Testing	14,045	14,888	15,781	16,728	17,731	18,795	19,923	21,118
Leachate Management	-	-	-	83,639	88,657	93,977	99,616	105,592
Surveying (As-builts)	16,292	17,270	18,306	19,404	20,569	21,803	23,111	24,497
Pump House Fly Ash and Bottom Ash Segregation	75,843	80,394	85,217	-	-	-	-	-
Dry Ash/Pyrites Handling System - Conveyor	-	-	-	2,161,234	2,290,908	2,428,363	2,574,065	2,728,509
Dry Gypsum Handling System	-	-	-	682,495	723,445	766,851	812,863	861,634
Leachate Pump House	15,169	16,079	17,043	18,066	19,150	20,299	21,517	22,808
Hauling Fly Ash and Bottom Ash to Landfill								
Loading	-	-	-	1,338,226	1,418,519	1,503,630	1,593,848	1,689,479
Phase 1 - 2.25 Mile Round Trip	-	-	-	2,822,723	2,992,087	3,171,612	3,361,909	3,563,623
Hauling Gypsum to Landfill								
Loading	-	-	-	1,746,384	1,851,167	1,962,237	2,079,972	2,204,770
Phase 1 - 2.25 Mile Round Trip	-	-	-	3,997,156	4,236,986	4,491,205	4,760,677	5,046,318
Landfilling Fly Ash and Bottom Ash	-	-	-	2,408,806	2,553,334	2,706,534	2,868,927	3,041,062
Landfilling Gypsum	-	-	-	3,143,492	3,332,101	3,532,027	3,743,949	3,968,586
Ash/Gypsum Placement QA/QC	-	-	-	54,198	57,450	60,897	64,551	68,424
Maintenance								
Landfills	-	-	-	301,101	319,167	338,317	358,616	380,133
Haul Roads	-	-	-	53,529	56,741	60,145	63,754	67,579
Dust Control	-	-	-	156,126	165,494	175,424	185,949	197,106
TOTAL	**121,349**	**128,630**	**136,348**	**19,003,308**	**20,143,507**	**21,352,117**	**22,633,244**	**23,991,239**

EXHIBIT F

GHENT LANDFILL (PHASE I)

Capital Expenditures ($ million)	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Total
Property Acquisition											
Disposal Site(s)	-	-	4.66	-	-	-	-	-	-	-	**4.66**
Overhead Electric Line(s)	-	-	0.03	-	-	-	-	-	-	-	**0.03**
Buffer Zones	-	-	-	-	2.37	-	-	-	-	-	**2.37**
Higher End House Acquisition	-	-	1.40	-	-	-	-	-	-	-	**1.40**
Engineering, Permits and Fees, and Construction Documents	0.46	2.00	-	-	-	-	-	-	-	-	**2.46**
Stream and Wetland Mitigation	-	-	4.14	-	-	-	-	-	-	-	**4.14**
Ground Water Monitoring System	-	0.27	-	-	-	-	-	-	-	-	**0.27**
Transmission Line Relocation Design, Engineering, and Construction	-	-	-	-	0.82	-	-	-	-	-	**0.82**
CCWD Relocation	-	-	0.12	-	-	-	-	-	-	-	**0.12**
Pump House Fly Ash and Bottom Ash Segregation	-	0.72	-	-	-	-	-	-	-	-	**0.72**
Dry Ash/Pyrites Handling System - Conveyor	-	-	16.29	27.08	38.93	-	-	-	-	-	**82.31**
Dry Gypsum Handling System	-	-	7.79	15.96	13.05	-	-	-	-	-	**36.80**
Gypsum Fines Project	-	0.74	6.30	6.30	-	-	-	-	-	-	**13.34**
Initial Site Preparation											
Clearing, Grubbing, and Site Preparation	-	-	-	0.62	0.65	0.69	-	-	-	-	**1.96**
Stripping and Stockpiling Soil	-	-	-	0.50	0.53	0.56	-	-	-	-	**1.58**
Hauling Topsoil - Phase 1 - 1.0 Mile Round Trip	-	-	-	0.19	0.20	0.21	-	-	-	-	**0.59**
Erosion and Sedimentation Controls	-	-	-	0.06	0.06	0.06	-	-	-	-	**0.18**
Sedimentation Pond	-	-	-	0.33	-	-	-	-	-	-	**0.33**
Collection Channels (Fabriform)	-	-	-	0.36	0.38	0.40	-	-	-	-	**1.15**
Diversion Channels (Riprap)	-	-	-	0.11	0.12	0.12	-	-	-	-	**0.35**
Liner Subgrade Preparation											
Scraping and Hauling - 0.25 Mile Round Trip	-	-	-	0.32	0.33	0.35	-	-	-	-	**1.01**
Excavating	-	-	-	0.15	0.16	0.17	-	-	-	-	**0.49**
Hauling Subgrade - Phase 1 - 1.0 Mile Round Trip	-	-	-	0.31	0.33	0.35	-	-	-	-	**0.99**
Spreading and Compacting Subgrade	-	-	-	0.49	0.52	0.55	-	-	-	-	**1.57**
Subgrade QA/QC	-	-	-	0.24	0.25	0.27	-	-	-	-	**0.76**
Gypsum Dewatering Facility Earthwork											
Excavating	-	-	-	0.73	-	-	-	-	-	-	**0.73**
Hauling Earth - 1.0 Mile Round Trip	-	-	-	1.53	-	-	-	-	-	-	**1.53**
Spreading and Compacting	-	-	-	1.21	-	-	-	-	-	-	**1.21**
Earthwork QA/QC	-	-	-	0.24	-	-	-	-	-	-	**0.24**

GHENT LANDFILL (PHASE I)

Capital Expenditures ($ million)	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Total
Haul Roads											
CCP Disposal On-Landfill Haul Road (60 Feet Wide)	-	-	-	-	0.61	0.05	0.05	0.05	0.05	0.06	**0.87**
CCP Disposal Off-Landfill Haul Road (60 Feet Wide)	-	-	-	0.30	1.03	-	-	-	-	-	**1.33**
Liner											
Landfill - Single Liner System	-	-	-	-	7.00	7.43	7.87	-	-	-	**22.30**
Liner System QA/QC	-	-	-	-	1.23	1.30	1.38	-	-	-	**3.90**
Leachate Collector Line	-	-	-	-	0.19	0.20	0.21	-	-	-	**0.60**
On-Landfill Leachate Trunk Line	-	-	-	-	0.08	0.08	0.09	-	-	-	**0.25**
Off-Landfill Leachate Trunk Line	-	-	-	-	0.07	-	-	-	-	-	**0.07**
Leachate Storage Pond	-	-	-	-	0.29	-	-	-	-	-	**0.29**
Leachate Pump House	-	-	-	-	0.09	-	-	-	-	-	**0.09**
Leachate Pipe Line	-	-	-	-	0.08	-	-	-	-	-	**0.08**
Underdrains - Trunk	-	-	-	-	0.17	0.18	0.19	-	-	-	**0.54**
Underdrains - Collector	-	-	-	-	0.11	0.12	0.12	-	-	-	**0.35**
Cap											
Intermediate Soil Cover	-	-	-	-	-	-	0.28	0.30	0.32	0.34	**1.24**
Cap System	-	-	-	-	-	-	0.22	0.23	0.25	0.26	**0.96**
Cap System QA/QC	-	-	-	-	-	-	0.03	0.03	0.03	0.03	**0.12**
Total	**0.46**	**3.72**	**40.73**	**57.01**	**69.65**	**13.10**	**10.44**	**0.62**	**0.65**	**0.69**	**197.07**
E.ON-US Overheads	0.02	0.13	1.43	2.00	2.44	0.46	0.37	0.02	0.02	0.02	**6.90**
Total with Overheads	**0.47**	**3.85**	**42.16**	**59.01**	**72.09**	**13.56**	**10.81**	**0.64**	**0.68**	**0.72**	**203.97**

EXHIBIT G

Revenue Requirments Summary
Gypsum Disposal at Sterling Materials

			2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Revenue Requirement													
Eligible Plant			$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 203,254,220	$ 203,969,979	$ 203,969,979	$ 248,969,979
Less Gypsum Plant			$ -	$ (14,090,000)	$ (40,060,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (98,110,000)
Revised Eligible Plant			$ 4,321,671	$ 32,388,846	$ 65,425,803	$ 124,467,356	$ 138,023,918	$ 148,831,953	$ 149,468,976	$ 150,144,220	$ 150,859,979	$ 150,859,979	$ 150,859,979
Less Accumulated Depreciation							$ (3,690,414)	$ (7,842,826)	$ (12,013,010)	$ (16,202,034)	$ (20,411,027)	$ (24,620,020)	$ (28,829,013)
Less Deferred Tax Balance							$ (528,683)	$ (2,857,926)	$ (4,921,730)	$ (6,731,945)	$ (8,301,165)	$ (9,641,200)	$ (11,289,441)
Environmental Compliance Rate Base			$ 4,321,671	$ 32,388,846	$ 65,425,803	$ 124,467,356	$ 133,804,821	$ 138,131,202	$ 132,534,236	$ 127,210,241	$ 122,147,788	$ 116,598,759	$ 110,741,525
Rate of Return			11.1%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
Assumed Tons (1.155)	1,000,000		$ 480,509	$ 3,553,056	$ 7,177,211	$ 13,654,069	$ 14,678,389	$ 15,152,993	$ 14,539,006	$ 13,954,963	$ 13,399,612	$ 12,790,884	$ 12,148,345
86.7500% Cubic yards	867,500												
Operating Expenses			$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,556
less Gypsum to On-site Landfill							$ (8,887,032)	$ (9,420,254)	$ (9,985,469)	$ (10,584,598)	$ (11,219,674)	$ (11,892,854)	$ (12,606,425)
Gypsum to Sterling	**$ 9.00**						$ 9,000,000	$ 9,540,000	$ 10,112,400	$ 10,719,144	$ 11,362,293	$ 12,044,030	$ 12,766,672
Net Operating			$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,116,276	$ 20,263,253	$ 21,479,048	$ 22,767,790	$ 24,133,858	$ 25,581,889	$ 27,116,803
Annual Depreciation							$ 3,690,414	$ 4,152,411	$ 4,170,184	$ 4,189,024	$ 4,208,993	$ 4,208,993	$ 4,208,993
Annual Property Tax Expense				$ 6,483	$ 69,718	$ 158,229	$ 266,366	$ 279,017	$ 286,798	$ 279,274	$ 271,751	$ 264,317	$ 264,317
Total OE			$ 84,800	$ 127,832	$ 198,348	$ 294,577	$ 23,073,056	$ 24,694,681	$ 25,936,030	$ 27,236,088	$ 28,614,602	$ 30,055,199	$ 31,590,112
Total E(m) Gypsum to Sterling		$ 453,492,164	$ 565,309	$ 3,680,888	$ 7,375,559	$ 13,948,646	$ 37,751,445	$ 39,847,674	$ 40,475,036	$ 41,191,051	$ 42,014,214	$ 42,846,083	$ 43,738,457
Total E(m) - Project 30 (See below)		$ 555,782,375	$ 565,309	$ 5,226,225	$ 11,769,378	$ 19,773,528	$ 44,705,239	$ 46,600,208	$ 46,976,843	$ 47,458,553	$ 48,044,547	$ 48,653,648	$ 55,312,476
Difference **PVRR**	**7.81%**	**$ (102,290,212)**	$ -	$ (1,545,337)	$ (4,393,819)	$ (5,824,882)	$ (6,953,794)	$ (6,752,534)	$ (6,501,807)	$ (6,267,502)	$ (6,030,333)	$ (5,807,565)	$ (11,574,019)
Date			12/31/2009	12/31/2010	12/31/2011	12/31/2012	12/31/2013	12/31/2014	12/31/2015	12/31/2016	12/31/2017	12/31/2018	12/31/2019

Revenue Requirments Summary
2009 Amended Plan
Project 30 Ghent Landfill Phase I
See Exhibit B

			2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
													Start Phase II
Revenue Requirement													$ 40,000,000
Eligible Plant			$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 203,254,220	$ 203,969,979	$ 203,969,979	$ 248,969,979
Less Gypsum Plant			$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Revised Eligible Plant			$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 203,254,220	$ 203,969,979	$ 203,969,979	$ 248,969,979
Less Accumulated Depreciation							$ (5,110,443)	$ (10,744,623)	$ (16,396,576)	$ (22,067,369)	$ (27,758,131)	$ (33,448,893)	$ (40,395,155)
Less Deferred Tax Balance							$ (732,114)	$ (3,915,341)	$ (6,717,677)	$ (9,168,992)	$ (11,289,232)	$ (13,098,586)	$ (15,818,743)
Environmental Compliance Rate Base			$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 185,291,361	$ 187,281,989	$ 179,464,723	$ 172,017,859	$ 164,922,616	$ 157,422,500	$ 192,756,081
Rate of Return			11.1%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
			$ 480,509	$ 5,098,729	$ 11,571,793	$ 19,480,236	$ 20,326,462	$ 20,544,834	$ 19,687,280	$ 18,870,359	$ 18,092,011	$ 17,269,248	$ 21,145,342
Operating Expenses			$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,555.78
less Gypsum to On-site Landfill							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Gypsum to Sterling							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Net Operating			$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,556
Annual Depreciation							$ 5,110,443	$ 5,634,180	$ 5,651,953	$ 5,670,793	$ 5,690,762	$ 5,690,762	$ 6,946,262
Annual Property Tax Expense				$ 6,483	$ 69,718	$ 158,229	$ 266,366	$ 279,017	$ 286,798	$ 279,274	$ 271,751	$ 264,317	$ 264,317
Total OE			$ 84,800	$ 127,832	$ 198,348	$ 294,577	$ 24,380,117	$ 26,056,704	$ 27,290,868	$ 28,583,311	$ 29,953,752	$ 31,385,792	$ 34,167,134
Total E(m) Gypsum to On-site Landfill as Calculated			$ 565,309	$ 5,226,561	$ 11,770,141	$ 19,774,813	$ 44,706,579	$ 46,601,539	$ 46,978,148	$ 47,453,670	$ 48,045,763	$ 48,655,040	$ 55,312,476
Total E(m) Gypsum to On-site Landfill per KU			$ 565,309	$ 5,226,225	$ 11,769,378	$ 19,773,528	$ 44,705,239	$ 46,600,208	$ 46,976,843	$ 47,458,553	$ 48,044,547	$ 48,653,648	
Calculation Check Difference			$ -	$ 336	$ 763	$ 1,285	$ 1,340	$ 1,331	$ 1,305	$ (4,883)	$ 1,216	$ 1,392	
Site E/F Hauling cost of Ash 2.25 mile round trip							$ 2,822,723	$ 2,992,086	$ 3,171,612	$ 3,361,908	$ 3,563,623	$ 3,777,440	$ 4,004,087
Haul Road Maintenance							$ 53,529	$ 56,741	$ 60,145	$ 63,754	$ 67,579	$ 71,634	$ 75,932
Total							$ 2,876,252	$ 3,048,827	$ 3,231,757	$ 3,425,662	$ 3,631,202	$ 3,849,074	$ 4,080,018
Reduce by 50% for Site M			$ -	$ -	$ -	$ -	$ 1,438,126	$ 1,524,414	$ 1,615,878	$ 1,712,831	$ 1,815,601	$ 1,924,537	$ 2,040,009
Difference **PVRR**	**7.81%**	**$ (21,865,903)**											

Revenue Requirments Summary
Gypsum Disposal at Sterling Materials

			2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
													Start Phase II
Revenue Requirement													$ 40,000,000
Eligible Plant			$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 323,969,979	$ 353,969,979	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
Less Gypsum Plant			$ (133,110,000)	$ (133,110,000)	$ (133,110,000)	$ (133,110,000)	$ (133,110,000)	$ (173,110,000)	$ (203,110,000)	$ (209,140,021)	$ (209,140,021)	$ (209,140,021)	$ (169,140,021)
Revised Eligible Plant			$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 190,859,979
Less Accumulated Depreciation			$ (33,038,006)	$ (37,246,999)	$ (41,455,992)	$ (45,664,985)	$ (49,873,978)	$ (54,082,972)	$ (58,291,965)	$ (62,500,958)	$ (66,709,951)	$ (70,918,944)	$ (76,243,937)
Less Deferred Tax Balance			$ (12,937,683)	$ (14,585,925)	$ (16,234,167)	$ (17,882,408)	$ (19,530,650)	$ (21,178,892)	$ (22,827,133)	$ (24,475,375)	$ (26,123,617)	$ (27,771,858)	$ (29,857,126)
Environmental Compliance Rate Base			$ 104,884,290	$ 99,027,055	$ 93,169,820	$ 87,312,585	$ 81,455,351	$ 75,598,116	$ 69,740,881	$ 63,883,646	$ 58,026,411	$ 52,169,177	$ 84,758,916
Rate of Return			10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
Assumed Tons (1.155)	1,000,000		$ 11,505,807	$ 10,863,268	$ 10,220,729	$ 9,578,191	$ 8,935,652	$ 8,293,113	$ 7,650,575	$ 7,008,036	$ 6,365,497	$ 5,722,959	$ 9,298,053
86.7500% Cubic yards	867,500												
Operating Expenses			$ 28,573,949	$ 30,288,386	$ 32,105,689	$ 34,032,031	$ 36,073,952	$ 38,238,390	$ 40,532,693	$ 42,964,655	$ 45,542,534	$ 48,275,086	$ 51,171,591
less Gypsum to On-site Landfill			$ (13,362,811)	$ (14,164,579)	$ (15,014,454)	$ (15,915,321)	$ (16,870,241)	$ (17,882,455)	$ (18,955,402)	$ (20,092,727)	$ (21,298,290)	$ (22,576,188)	$ (23,930,759)
Gypsum to Sterling	**$ 9.00**		$ 13,532,672	$ 14,344,633	$ 15,205,311	$ 16,117,629	$ 17,084,687	$ 18,109,768	$ 19,196,354	$ 20,348,136	$ 21,569,024	$ 22,863,165	$ 24,234,955
Net Operating			$ 28,743,811	$ 30,468,439	$ 32,296,546	$ 34,234,338	$ 36,288,399	$ 38,465,703	$ 40,773,645	$ 43,220,064	$ 45,813,267	$ 48,562,063	$ 51,475,787
Annual Depreciation			$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 5,324,993
Annual Property Tax Expense			$ 322,630	$ 367,985	$ 367,985	$ 367,985	$ 367,985	$ 367,985	$ 419,820	$ 458,696	$ 466,510	$ 466,510	$ 466,510
Total OE			$ 33,275,434	$ 35,045,418	$ 36,873,524	$ 38,811,317	$ 40,865,377	$ 43,042,681	$ 45,402,458	$ 47,887,752	$ 50,488,770	$ 53,237,566	$ 57,267,290
Total E(m) Gypsum to Sterling		$ 453,492,164	$ 44,781,241	$ 45,908,686	$ 47,094,253	$ 48,389,508	$ 49,801,029	$ 51,335,794	$ 53,053,032	$ 54,895,788	$ 56,854,267	$ 58,960,525	$ 66,565,343
Total E(m) - Project 30 (See below)		$ 555,782,375	$ 60,594,706	$ 61,145,021	$ 61,752,847	$ 62,469,712	$ 63,302,156	$ 69,590,749	$ 74,557,268	$ 76,324,534	$ 77,376,925	$ 78,576,175	$ 79,939,378
Difference **PVRR**	**7.81%**	**$ (102,290,212)**	$ (15,813,466)	$ (15,236,335)	$ (14,658,594)	$ (14,080,204)	$ (13,501,127)	$ (18,254,955)	$ (21,504,236)	$ (21,428,746)	$ (20,522,658)	$ (19,615,651)	$ (13,374,035)
Date			12/31/2020	12/31/2021	12/31/2022	12/31/2023	12/31/2024	12/31/2025	12/31/2026	12/31/2027	12/31/2028	12/31/2029	12/31/2030

Revenue Requirments Summary
2009 Amended Plan
Project 30 Ghent Landfill Phase I
See Exhibit B

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
						Start Phase III					
Revenue Requirement	$ 40,000,000					$ 40,000,000	$ 30,000,000	$ 6,030,021			
Eligible Plant	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 323,969,979	$ 353,969,979	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
Less Gypsum Plant	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Revised Eligible Plant	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 323,969,979	$ 353,969,979	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
Less Accumulated Depreciation	$ (48,317,917)	$ (56,240,679)	$ (64,163,440)	$ (72,086,202)	$ (80,008,964)	$ (89,047,726)	$ (98,923,488)	$ (108,967,487)	$ (119,011,486)	$ (129,055,485)	$ (139,099,485)
Less Deferred Tax Balance	$ (18,921,296)	$ (22,023,850)	$ (25,126,403)	$ (28,228,957)	$ (31,331,510)	$ (34,871,089)	$ (38,738,438)	$ (42,671,668)	$ (46,604,898)	$ (50,538,128)	$ (54,471,358)
Environmental Compliance Rate Base	$ 216,730,766	$ 205,705,451	$ 194,680,135	$ 183,654,820	$ 172,629,505	$ 200,051,164	$ 216,308,054	$ 208,360,845	$ 194,383,616	$ 180,406,387	$ 166,429,157
Rate of Return	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
	$ 23,775,365	$ 22,565,888	$ 21,356,411	$ 20,146,934	$ 18,937,457	$ 21,945,613	$ 23,728,993	$ 22,857,185	$ 21,323,883	$ 19,790,581	$ 18,257,279
Operating Expenses	$ 28,573,949.13	$ 30,288,386.07	$ 32,105,689.24	$ 34,032,030.59	$ 36,073,952.43	$ 38,238,389.57	$ 40,532,692.95	$ 42,964,654.53	$ 45,542,533.80	$ 48,275,085.83	$ 51,171,590.97
less Gypsum to On-site Landfill	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Gypsum to Sterling	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Net Operating	$ 28,573,949	$ 30,288,386	$ 32,105,689	$ 34,032,031	$ 36,073,952	$ 38,238,390	$ 40,532,693	$ 42,964,655	$ 45,542,534	$ 48,275,086	$ 51,171,591
Annual Depreciation	$ 7,922,762	$ 7,922,762	$ 7,922,762	$ 7,922,762	$ 7,922,762	$ 9,038,762	$ 9,875,762	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999
Annual Property Tax Expense	$ 322,630	$ 367,985	$ 367,985	$ 367,985	$ 367,985	$ 419,820	$ 458,696	$ 466,510	$ 466,510	$ 466,510	$ 466,510
Total OE	$ 36,819,341	$ 38,579,133	$ 40,396,436	$ 42,322,778	$ 44,364,700	$ 47,645,137	$ 50,828,274	$ 53,467,349	$ 56,053,043	$ 58,785,595	$ 61,682,100
Total E(m) Gypsum to On-site Landfill as Calculated	$ 60,594,706	$ 61,145,021	$ 61,752,847	$ 62,469,712	$ 63,302,156	$ 69,590,749	$ 74,557,268	$ 76,324,534	$ 77,376,925	$ 78,576,175	$ 79,939,378
Total E(m) Gypsum to On-site Landfill per KU											
Calculation Check Difference											
Site E/F Hauling cost of Ash 2.25 mile round trip	$ 4,244,332	$ 4,498,992	$ 4,768,931	$ 5,055,067	$ 5,358,371	$ 5,679,873	$ 6,020,666	$ 6,381,906	$ 6,764,820	$ 7,170,709	$ 7,600,952
Haul Road Maintenance	$ 80,488	$ 85,317	$ 90,436	$ 95,862	$ 101,614	$ 107,711	$ 114,174	$ 121,024	$ 128,285	$ 135,982	$ 144,141
Total	$ 4,324,820	$ 4,584,309	$ 4,859,367	$ 5,150,929	$ 5,459,985	$ 5,787,584	$ 6,134,839	$ 6,502,930	$ 6,893,105	$ 7,306,692	$ 7,745,093
Reduce by 50% for Site M	$ 2,162,410	$ 2,292,154	$ 2,429,684	$ 2,575,465	$ 2,729,993	$ 2,893,792	$ 3,067,420	$ 3,251,465	$ 3,446,553	$ 3,653,346	$ 3,872,547

Difference **PVRR** **7.81%** **$ (21,865,903)**

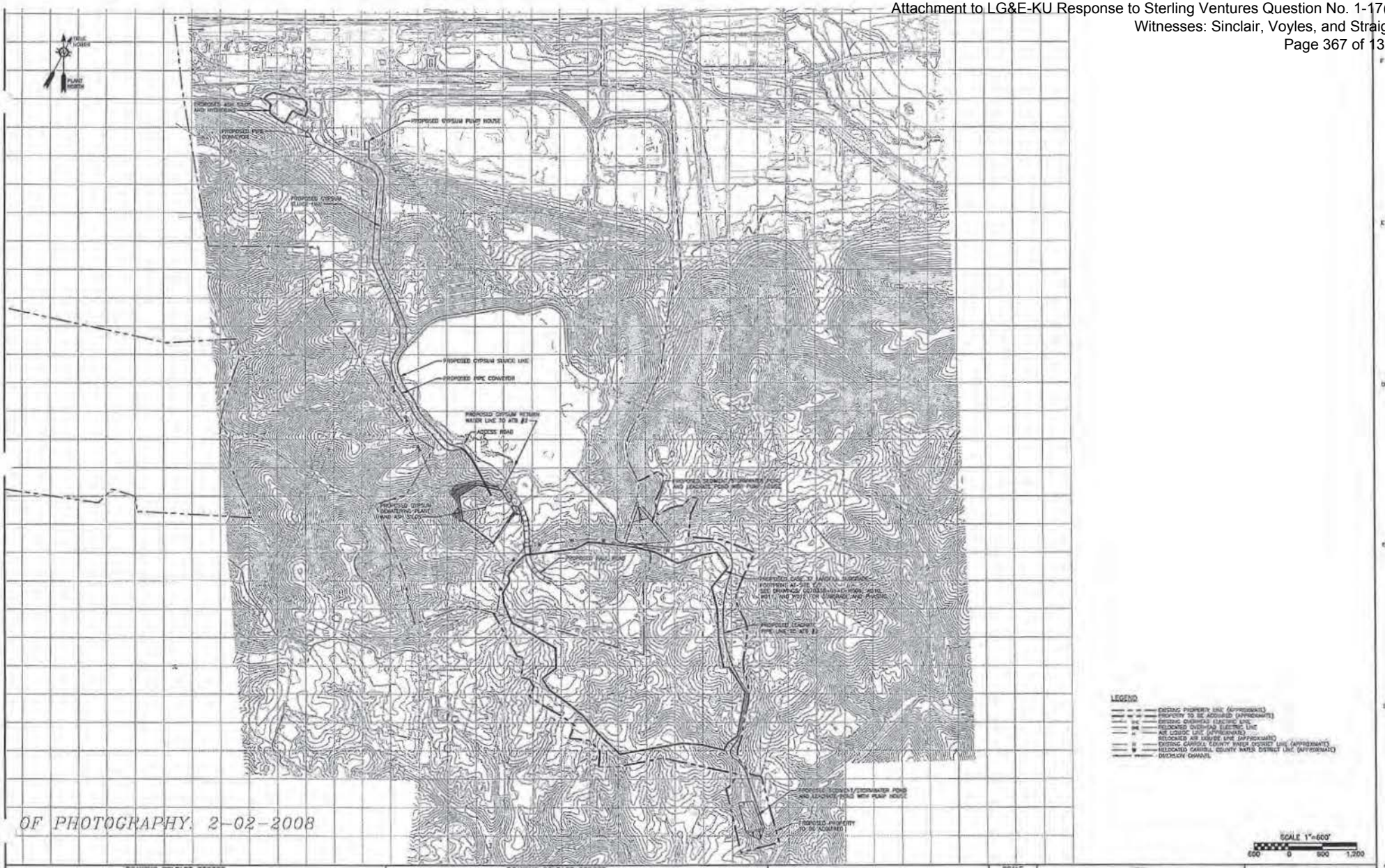
Revenue Requirments Summary
Gypsum Disposal at Sterling Materials

			2031	2032	2033	2034	2035	2036	2037	
Revenue Requirement			$ 40,000,000							
Eligible Plant			$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	
Less Gypsum Plant			$ (129,140,021)	$ (129,140,021)	$ (129,140,021)	$ (129,140,021)	$ (129,140,021)	$ (129,140,021)	$ (129,140,021)	
Revised Eligible Plant			$ 230,859,979	$ 230,859,979	$ 230,859,979	$ 230,859,979	$ 230,859,979	$ 230,859,979	$ 230,859,979	
Less Accumulated Depreciation			$ (82,684,930)	$ (89,125,923)	$ (95,566,916)	$ (102,007,909)	$ (108,448,902)	$ (114,889,895)	$ (121,330,888)	
Less Deferred Tax Balance			$ (32,379,419)	$ (34,901,711)	$ (37,424,004)	$ (39,946,297)	$ (42,468,590)	$ (44,990,883)	$ (47,513,176)	
Environmental Compliance Rate Base			$ 115,795,631	$ 106,832,345	$ 97,869,059	$ 88,905,773	$ 79,942,487	$ 70,979,202	$ 62,015,916	
Rate of Return			10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	
Assumed	Tons (1.155)	1,000,000	$ 12,702,781	$ 11,719,508	$ 10,736,236	$ 9,752,963	$ 8,769,691	$ 7,786,418	$ 6,803,146	
86.7500%	Cubic yards	867,500								
Operating Expenses			$ 54,241,886	$ 57,496,400	$ 60,946,184	$ 64,602,955	$ 68,479,132	$ 72,587,880	$ 76,943,153	
less Gypsum to On-site Landfill			$ (25,366,604)	$ (26,888,601)	$ (28,501,917)	$ (30,212,032)	$ (32,024,754)	$ (33,946,239)	$ (35,983,013)	
Gypsum to Sterling		**$ 9.00**	$ 25,689,052	$ 27,230,396	$ 28,864,219	$ 30,596,072	$ 32,431,837	$ 34,377,747	$ 36,440,412	
Net Operating			$ 54,564,334	$ 57,838,194	$ 61,308,486	$ 64,986,995	$ 68,886,215	$ 73,019,388	$ 77,400,551	
Annual Depreciation			$ 6,440,993	$ 6,440,993	$ 6,440,993	$ 6,440,993	$ 6,440,993	$ 6,440,993	$ 6,440,993	
Annual Property Tax Expense			$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	
Total OE			$ 61,471,837	$ 64,745,697	$ 68,215,989	$ 71,894,498	$ 75,793,718	$ 79,926,890	$ 84,308,054	
Total E(m) Gypsum to Sterling		$ 453,492,164	$ 74,174,618	$ 76,465,205	$ 78,952,224	$ 81,647,461	$ 84,563,408	$ 87,713,309	$ 91,111,200	$ 1,465,701,254
Total E(m) - Project 30 (See below)		$ 555,782,375	$ 81,476,372	$ 83,197,583	$ 85,114,065	$ 87,237,534	$ 89,580,409	$ 92,155,855	$ 94,977,826	$ 1,754,455,070
Difference	**PVRR**	**7.81% $ (102,290,212)**	$ (7,301,754)	$ (6,732,378)	$ (6,161,840)	$ (5,590,073)	$ (5,017,001)	$ (4,442,546)	$ (3,866,626)	$ (288,753,816)
Date			12/31/2031	12/31/2032	12/31/2033	12/31/2034	12/31/2035	12/31/2036	12/31/2037	
										$ (288,753,816)

Revenue Requirments Summary
2009 Amended Plan
Project 30 Ghent Landfill Phase I
See Exhibit B

			2031	2032	2033	2034	2035	2036	2037
Revenue Requirement									
Eligible Plant			$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
Less Gypsum Plant			$ -	$ -	$ -	$ -	$ -	$ -	$ -
Revised Eligible Plant			$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
Less Accumulated Depreciation			$ (149,143,484)	$ (159,187,483)	$ (169,231,482)	$ (179,275,482)	$ (189,319,481)	$ (199,363,480)	$ (209,407,479)
Less Deferred Tax Balance			$ (58,404,588)	$ (62,337,818)	$ (66,271,048)	$ (70,204,279)	$ (74,137,509)	$ (78,070,739)	$ (82,003,969)
Environmental Compliance Rate Base			$ 152,451,928	$ 138,474,699	$ 124,497,469	$ 110,520,240	$ 96,543,010	$ 82,565,781	$ 68,588,552
Rate of Return			10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
			$ 16,723,976	$ 15,190,674	$ 13,657,372	$ 12,124,070	$ 10,590,768	$ 9,057,466	$ 7,524,164
Operating Expenses			$ 54,241,886.43	$ 57,496,399.62	$ 60,946,183.60	$ 64,602,954.61	$ 68,479,131.89	$ 72,587,879.80	$ 76,943,152.59
less Gypsum to On-site Landfill			$ -	$ -	$ -	$ -	$ -	$ -	$ -
Gypsum to Sterling			$ -	$ -	$ -	$ -	$ -	$ -	$ -
Net Operating			$ 54,241,886	$ 57,496,400	$ 60,946,184	$ 64,602,955	$ 68,479,132	$ 72,587,880	$ 76,943,153
Annual Depreciation			$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999
Annual Property Tax Expense			$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510
Total OE			$ 64,752,395	$ 68,006,908	$ 71,456,692	$ 75,113,463	$ 78,989,641	$ 83,098,389	$ 87,453,661
Total E(m) Gypsum to On-site Landfill as Calculated			$ 81,476,372	$ 83,197,583	$ 85,114,065	$ 87,237,534	$ 89,580,409	$ 92,155,855	$ 94,977,826
Total E(m) Gypsum to On-site Landfill per KU									
Calculation Check Difference									
Site E/F	Hauling cost of Ash 2.25 mile round trip		$ 8,057,009	$ 8,540,429	$ 9,052,855	$ 9,596,026	$ 10,171,788	$ 10,782,095	$ 11,429,021
	Haul Road Maintenance		$ 152,790	$ 161,957	$ 171,675	$ 181,975	$ 192,894	$ 204,467	$ 216,735
Total			$ 8,209,799	$ 8,702,387	$ 9,224,530	$ 9,778,002	$ 10,364,682	$ 10,986,563	$ 11,645,756
Reduce by 50% for Site M			$ 4,104,899	$ 4,351,193	$ 4,612,265	$ 4,889,001	$ 5,182,341	$ 5,493,281	$ 5,822,878
Difference	**PVRR**	**7.81% $ (21,865,903)**							

EXHIBIT H



OF PHOTOGRAPHY: 2-02-2008

DRAWING RELEASE RECORD					DRAWING RELEASE RECORD				
REV.	DATE	PREPARED	APPROVED	PURPOSE	REV.	DATE	PREPARED	APPROVED	PURPOSE
A		JPC		Original Drawing Release					

DRAWN: TSH
CHECKED:
DATE:
DWG NO. 001
PROJECT NO./DWG NO. 0070338-01
DRAWING NO. W040

SCALE 1"=600'
PROJECT NUMBER

TSH
ASH POND AND LANDFILL PROJECT
FINAL CONCEPTUAL DESIGN
CASE 37 - OVERVIEW

Kentucky Utilities Company
an E·ON company

From: Pfeiffer, Caryl(/O=LGE/OU=LOUISVILLE/CN=RECIPIENTS/CN=E012383)
To: Tapp Sr., Kenny (Electric)
CC:
BCC:
Subject: FW: Ghent Station Gypsum Disposal
Sent: 11/07/2011 07:12:49 AM -0500 (EST)
Attachments: Ghent PVRR Rev Landfill const amts.xlsx; GHENT STATION ALTERNATIVE FOR CCP(1).pdf;

From: John Walters [mailto:johnwalters@sterlingventures.com]
Sent: Friday, November 04, 2011 11:15 AM
To: Pfeiffer, Caryl
Cc: Alex Boone
Subject: Ghent Station Gypsum Disposal

Caryl

Last Thursday, I sent Scott Straight and John Voyles an updated PVRR analysis comparing the alternative of using of Sterling's underground mine for Ghent's gypsum disposal to the current plan to place excess gypsum in the new landfill. The update was based on additional information from more recent PSC filings, and that update, along with the new assumptions, is attached.

Since I first provided our PVRR savings analysis on September 17, I have not been able to talk to anyone about the proposal. As I indicated in my cover letter in September, I necessarily had to make assumptions in calculating the PVRR saving - most importantly the projected cost and timing of phases 2 and 3 of the new landfill. Am I correct in assuming that a lack of any response to a potential $80,000,000 PVRR saving is the result of my analysis and/or assumption being grossly incorrect? If that is the case, could someone let me know what errors I made in my analysis? I was hoping to provide an alternative that substantially delayed the need to build phase 2, and eliminated entirely the need for phase 3.

Also, I have not received any response to our updated proposal, as requested by Tim Smith, to use our mine for disposal of 1,500,000 tons of gypsum from Ghent's stacking pond. Is Ghent still looking at a short term plan to dispose of gypsum in the stacking pond? I understand that Tim Smith has been transferred to Trimble County. If there is still a need with respect to Ghent's gypsum stacking pond, who should we be talking to?

Any help would be appreciated.

John

John W. Walters, Jr.
Sterling Ventures, LLC
376 South Broadway
Lexington, KY 40508
Phone (859) 259-9600
Cell (859) 621-3990
Fax (859) 259-9601
johnwalters@sterlingventures.com

	A	B	C	D	E	F	G	H	I
1		Dry	Gypsum	Gypsum	Operation and	Phase II	Phase III	Total	Hauling
2		Gypsum	Fines	Dewatering	Maintenance	Construction	Construction	Capital Cost	Gypsum to
3		Handling	Project	Facility	Dry Gypsum				Landfill
4		System		Earthwork	Handling				
5					System				
6									
7	12/31/2010	$ 7,790,000	$ 6,300,000	$ -	$ -	$ -	$ -	$ 14,090,000	$ -
8	12/31/2011	$ 15,960,000	$ 6,300,000	$ 371,000	$ -	$ -	$ -	$ 22,631,000	$ -
9	12/30/2012	$ 13,050,000	$ -	$ -	$ -	$ -	$ -	$ 13,050,000	$ -
10	12/30/2013	$ -	$ -	$ -	$ 682,495	$ -	$ -	$ 682,495	$ 8,887,032
11	12/30/2014	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 9,420,254
12	12/30/2015	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 9,985,469
13	12/29/2016	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 10,584,598
14	12/29/2017	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 11,219,674
15	12/29/2018	$ -	$ -	$ -	$ -	$ 40,000,000	$ -	$ 40,000,000	$ 11,892,854
16	12/29/2019	$ -	$ -	$ -	$ -	$ 20,000,000	$ -	$ 20,000,000	$ 12,606,426
17	12/28/2020	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 13,362,811
18	12/28/2021	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 14,164,580
19	12/28/2022	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 15,014,455
20	12/28/2023	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 15,915,322
21	12/27/2024	$ -	$ -	$ -	$ -	$ -	$ 40,000,000	$ 40,000,000	$ 16,870,241
22	12/27/2025	$ -	$ -	$ -	$ -	$ -	$ 40,000,000	$ 40,000,000	$ 17,882,456
23	12/27/2026	$ -	$ -	$ -	$ -	$ -	$ 20,000,000	$ 20,000,000	$ 18,955,403
24	12/27/2027	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 20,092,727
25	12/26/2028	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 21,298,291
26	12/26/2029	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 22,576,188
27	12/26/2030	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 23,930,760
28	12/26/2031	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 25,366,605
29	12/25/2032	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 26,888,602
30	12/25/2033	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 28,501,918
31	12/25/2034	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 30,212,033
32	12/25/2035	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 32,024,755

	J	K	L	M	N	O
1	Total	Discount	Haul	Phase III		Discount
2	Cost Gypsum	Rate	Gypsum	Construction		Rate
3	to Ghent	6.70%	to Sterling			6.70%
4	Landfill					
5						
6		PVRR				PVRR
7	$ 14,090,000	$ 289,828,563	$ -	$ -	$ -	$ 252,258,836
8	$ 22,631,000		$ -	$ -	$ -	
9	$ 13,050,000		$ -	$ -	$ -	
10	$ 9,569,527		$ 11,236,000	$ -	$ 11,236,000	
11	$ 9,420,254		$ 11,910,160	$ -	$ 11,910,160	
12	$ 9,985,469		$ 12,624,770	$ -	$ 12,624,770	
13	$ 10,584,598		$ 13,382,256	$ -	$ 13,382,256	
14	$ 11,219,674		$ 14,185,191	$ -	$ 14,185,191	
15	$ 51,892,854		$ 15,036,303	$ -	$ 15,036,303	
16	$ 32,606,426		$ 15,938,481	$ -	$ 15,938,481	
17	$ 13,362,811		$ 16,894,790	$ -	$ 16,894,790	
18	$ 14,164,580		$ 17,908,477	$ -	$ 17,908,477	
19	$ 15,014,455		$ 18,982,986	$ -	$ 18,982,986	
20	$ 15,915,322		$ 20,121,965	$ -	$ 20,121,965	
21	$ 56,870,241		$ 21,329,283	$ 40,000,000	$ 61,329,283	
22	$ 57,882,456		$ 22,609,040	$ 40,000,000	$ 62,609,040	
23	$ 38,955,403		$ 23,965,582	$ 20,000,000	$ 43,965,582	
24	$ 20,092,727		$ 25,403,517	$ -	$ 25,403,517	
25	$ 21,298,291		$ 26,927,728	$ -	$ 26,927,728	
26	$ 22,576,188		$ 28,543,392	$ -	$ 28,543,392	
27	$ 23,930,760		$ 30,255,995	$ -	$ 30,255,995	
28	$ 25,366,605		$ 32,071,355	$ -	$ 32,071,355	
29	$ 26,888,602		$ 33,995,636	$ -	$ 33,995,636	
30	$ 28,501,918		$ 36,035,374	$ -	$ 36,035,374	
31	$ 30,212,033		$ 38,197,497	$ -	$ 38,197,497	
32	$ 32,024,755		$ 40,489,346	$ -	$ 40,489,346	

	A	B	C	D	E	F	G	H	I
33	12/24/2036	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 33,946,240
34	12/24/2037	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 35,983,014
35		$ 36,800,000	$ 12,600,000	$ 371,000	$ 682,495	$ 60,000,000	$ 100,000,000	$ 210,453,495	$ 487,582,709
36					$ 50,453,495		$ 160,000,000		

	J	K	L	M	N	O
33	$ 33,946,240		$ 42,918,707	$ -	$ 42,918,707	
34	$ 35,983,014		$ 45,493,830	$ -	$ 45,493,830	
35	$ 698,036,204		$ 616,457,657	$ 100,000,000	$ 716,457,657	
36						

	A	B	C	D	E	F	G	H	I
1	Revenue Requirments Summary								
2	Gypsum Disposal at Sterling Materials					2009	2010	2011	2012
3									
4	Revenue Requirement								
5	Eligible Plant					$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356
6	Less Gypsum Plant Requirements					$ -	$ (14,090,000)	$ (40,060,000)	$ (53,110,000)
7	Revised Eligible Plant					$ 4,321,671	$ 32,388,846	$ 65,425,803	$ 124,467,356
8	Less Accumulated Depreciation								
9	Less Deferred Tax Balance								
10	Environmental Compliance Rate Base					$ 4,321,671	$ 32,388,846	$ 65,425,803	$ 124,467,356
11	Rate of Return					11.1%	10.97%	10.97%	10.97%
12		Assumed	Tons (1.155)	1,000,000		$ 480,509	$ 3,553,056	$ 7,177,211	$ 13,654,069
13		86.7500%	Cubic yards	867,500					
14	Operating Expenses					$ 84,800	$ 121,349	$ 128,630	$ 136,348
15	less Gypsum to On-site Landfill								
16	Gypsum to Sterling			**$ 10.50**					
17	Net Operating					$ 84,800	$ 121,349	$ 128,630	$ 136,348
18	Annual Depreciation								
19	Annual Property Tax Expense						$ 6,483	$ 69,718	$ 158,229
20	Total OE					$ 84,800	$ 127,832	$ 198,348	$ 294,577
21									
22	Total E(m) Gypsum to Sterling				$ 465,879,534	$ 565,309	$ 3,680,888	$ 7,375,559	$ 13,948,646
23	Total E(m) - Project 30 (See below)				$ 546,553,593	$ 565,309	$ 5,226,225	$ 11,769,378	$ 19,773,528
24									
25	**Difference**		**PVRR**	**7.81%**	**$ (80,674,059)**	$ -	$ (1,545,337)	$ (4,393,819)	$ (5,824,882)
26	Date					12/31/2009	12/31/2010	12/31/2011	12/31/2012
27									
28	Revenue Requirments Summary								
29	2009 Amended Plan								
30	Project 30		Ghent Landfill Phase I						
31	See Exhibit B					2009	2010	2011	2012
32									
33	Revenue Requirement								
34	Eligible Plant					$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356
35	Less Gypsum Plant Requirements					$ -	$ -	$ -	$ -
36	Revised Eligible Plant					$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356
37	Less Accumulated Depreciation								
38	Less Deferred Tax Balance								
39	Environmental Compliance Rate Base					$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356
40	Rate of Return					11.1%	10.97%	10.97%	10.97%
41						$ 480,509	$ 5,098,729	$ 11,571,793	$ 19,480,236
42									
43	Operating Expenses					$ 84,800	$ 121,349	$ 128,630	$ 136,348
44	less Gypsum to On-site Landfill								
45	Gypsum to Sterling								
46	Net Operating					$ 84,800	$ 121,349	$ 128,630	$ 136,348
47	Annual Depreciation								
48	Annual Property Tax Expense						$ 6,483	$ 69,718	$ 158,229

	J	K	L	M	N	O	P	Q	R	S	T	U
1												
2	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
3												
4												
5	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 203,078,976	$ 204,078,976	$ 212,078,976	$ 228,078,976	$ 239,078,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 262,328,976
6	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (69,110,000)	$ (80,110,000)	$ (83,610,000)	$ (83,610,000)	$ (83,610,000)	$ (103,360,000)
7	$ 138,023,918	$ 148,831,953	$ 149,468,976	$ 149,968,976	$ 150,968,976	$ 158,968,976	$ 158,968,976	$ 158,968,976	$ 158,968,976	$ 158,968,976	$ 158,968,976	$ 158,968,976
8	$ (3,690,414)	$ (7,842,826)	$ (12,013,010)	$ (16,197,144)	$ (20,409,178)	$ (24,844,413)	$ (29,279,647)	$ (33,714,881)	$ (38,150,115)	$ (42,585,349)	$ (47,020,583)	$ (51,455,817)
9	$ (528,683)	$ (2,857,926)	$ (4,921,730)	$ (6,729,913)	$ (8,300,413)	$ (9,729,072)	$ (11,465,910)	$ (13,202,747)	$ (14,939,585)	$ (16,676,423)	$ (18,413,260)	$ (20,150,098)
10	$ 133,804,821	$ 138,131,202	$ 132,534,236	$ 127,041,918	$ 122,259,385	$ 124,395,492	$ 118,223,420	$ 112,051,348	$ 105,879,276	$ 99,707,204	$ 93,535,133	$ 87,363,061
11	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
12	$ 14,678,389	$ 15,152,993	$ 14,539,006	$ 13,936,498	$ 13,411,855	$ 13,646,185	$ 12,969,109	$ 12,292,033	$ 11,614,957	$ 10,937,880	$ 10,260,804	$ 9,583,728
13								$ 27,051	$ 661,940			
14	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,556	**$ 28,601,000**	**$ 30,979,000**	$ 32,837,740	$ 34,808,004	$ 36,896,485
15	$ (9,569,527)	$ (10,143,699)	$ (10,752,321)	$ (11,397,460)	$ (12,081,307)	$ (12,806,186)	$ (13,574,557)	$ (14,389,030)	$ (15,252,372)	$ (16,167,515)	$ (17,137,565)	$ (18,165,819)
16	$ 10,500,000	$ 11,130,000	$ 11,797,800	$ 12,505,668	$ 13,256,008	$ 14,051,369	$ 14,894,451	$ 15,788,118	$ 16,735,405	$ 17,739,529	$ 18,803,901	$ 19,932,135
17	$ 19,933,781	$ 21,129,808	$ 22,397,596	$ 23,741,452	$ 25,165,940	$ 26,675,896	$ 28,276,450	$ 30,000,087	$ 32,462,033	$ 34,409,755	$ 36,474,340	$ 38,662,800
18	$ 3,690,414	$ 4,152,411	$ 4,170,184	$ 4,184,135	$ 4,212,034	$ 4,435,234	$ 4,435,234	$ 4,435,234	$ 4,435,234	$ 4,435,234	$ 4,435,234	$ 4,435,234
19	$ 266,366	$ 279,017	$ 286,798	$ 279,274	$ 271,517	$ 264,458	$ 274,825	$ 295,558	$ 309,813	$ 314,348	$ 314,348	$ 314,348
20	$ 23,890,561	$ 25,561,237	$ 26,854,579	$ 28,204,861	$ 29,649,490	$ 31,375,588	$ 32,986,508	$ 34,730,880	$ 37,207,080	$ 39,159,337	$ 41,223,922	$ 43,412,383
21												
22	$ 38,568,950	$ 40,714,230	$ 41,393,584	$ 42,141,359	$ 43,061,345	$ 45,021,773	$ 45,955,617	$ 47,022,913	$ 48,822,036	$ 50,097,217	$ 51,484,726	$ 52,996,110
23	$ 44,705,239	$ 46,600,208	$ 46,976,843	$ 47,458,553	$ 48,044,547	$ 48,653,648	$ 52,503,105	$ 54,636,554	$ 55,813,660	$ 56,602,313	$ 57,495,468	$ 61,137,686
24												
25	$ (6,136,289)	$ (5,885,978)	$ (5,583,259)	$ (5,317,194)	$ (4,983,202)	$ (3,631,875)	$ (6,547,488)	$ (7,613,641)	$ (6,991,623)	$ (6,505,095)	$ (6,010,742)	$ (8,141,575)
26	12/31/2013	12/31/2014	12/31/2015	12/31/2016	12/31/2017	12/31/2018	12/31/2019	12/31/2020	12/31/2021	12/31/2022	12/31/2023	12/31/2024
27												
28												
29												
30												
31	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
32				**Start Phase II**								**Start Phase III**
33				$ 500,000	$ 1,000,000	$ 8,000,000	$ 16,000,000	$ 11,000,000	$ 3,500,000			$ 19,750,000
34	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 203,078,976	$ 204,078,976	$ 212,078,976	$ 228,078,976	$ 239,078,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 262,328,976
35	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
36	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 203,078,976	$ 204,078,976	$ 212,078,976	$ 228,078,976	$ 239,078,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 262,328,976
37	$ (5,110,443)	$ (10,744,623)	$ (16,396,576)	$ (22,062,480)	$ (27,756,283)	$ (33,673,286)	$ (40,036,689)	$ (46,706,992)	$ (53,474,945)	$ (60,242,897)	$ (67,010,850)	$ (74,329,828)
38	$ (732,114)	$ (3,915,341)	$ (6,717,677)	$ (9,166,960)	$ (11,288,480)	$ (13,186,459)	$ (15,678,367)	$ (18,290,458)	$ (20,940,788)	$ (23,591,119)	$ (26,241,449)	$ (29,107,561)
39	$ 185,291,361	$ 187,281,989	$ 179,464,723	$ 171,849,536	$ 165,034,213	$ 165,219,232	$ 172,363,920	$ 174,081,526	$ 168,163,243	$ 158,744,960	$ 149,326,677	$ 158,891,587
40	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
41	$ 20,326,462	$ 20,544,834	$ 19,687,280	$ 18,851,894	$ 18,104,253	$ 18,124,550	$ 18,908,322	$ 19,096,743	$ 18,447,508	$ 17,414,322	$ 16,381,136	$ 17,430,407
42												
43	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,555.78	$ 28,573,949.13	$ 30,288,386.07	$ 32,105,689.24	$ 34,032,030.59	$ 36,073,952.43
44	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
45	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
46	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,556	$ 28,573,949	$ 30,288,386	$ 32,105,689	$ 34,032,031	$ 36,073,952
47	$ 5,110,443	$ 5,634,180	$ 5,651,953	$ 5,665,904	$ 5,693,803	$ 5,917,003	$ 6,363,403	$ 6,670,303	$ 6,767,953	$ 6,767,953	$ 6,767,953	$ 7,318,978
48	$ 266,366	$ 279,017	$ 286,798	$ 279,274	$ 271,517	$ 264,458	$ 274,825	$ 295,558	$ 309,813	$ 314,348	$ 314,348	$ 314,348

	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG
1												
2	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
3		**Start Phase II**										
4		$ 500,000	$ 1,000,000	$ 8,000,000	$ 16,000,000	$ 11,000,000	$ 3,500,000					
5	$ 302,328,976	$ 342,328,976	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
6	$ (143,360,000)	$ (182,860,000)	$ (199,531,024)	$ (191,531,024)	$ (175,531,024)	$ (164,531,024)	$ (161,031,024)	$ (161,031,024)	$ (161,031,024)	$ (161,031,024)	$ (161,031,024)	$ (161,031,024)
7	$ 158,968,976	$ 159,468,976	$ 160,468,976	$ 168,468,976	$ 184,468,976	$ 195,468,976	$ 198,968,976	$ 198,968,976	$ 198,968,976	$ 198,968,976	$ 198,968,976	$ 198,968,976
8	$ (55,891,051)	$ (60,340,235)	$ (64,817,319)	$ (69,517,604)	$ (74,664,288)	$ (80,117,872)	$ (85,669,106)	$ (91,220,340)	$ (96,771,574)	$ (102,322,808)	$ (107,874,042)	$ (113,425,276)
9	$ (21,886,936)	$ (23,629,236)	$ (25,382,462)	$ (27,223,094)	$ (29,238,535)	$ (31,374,159)	$ (33,548,022)	$ (35,721,885)	$ (37,895,748)	$ (40,069,612)	$ (42,243,475)	$ (44,417,338)
10	$ 81,190,989	$ 75,499,504	$ 70,269,194	$ 71,728,279	$ 80,566,153	$ 83,976,946	$ 79,751,849	$ 72,026,751	$ 64,301,654	$ 56,576,557	$ 48,851,460	$ 41,126,362
11	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
12	$ 8,906,652	$ 8,282,296	$ 7,708,531	$ 7,868,592	$ 8,838,107	$ 9,212,271	$ 8,748,778	$ 7,901,335	$ 7,053,891	$ 6,206,448	$ 5,359,005	$ 4,511,562
13				$ (1,912,962)								
14	$ 39,110,274	$ 41,456,890	$ 43,944,304	**$ 44,668,000**	$ 47,348,080	$ 50,188,965	$ 53,200,303	$ 56,392,321	$ 59,775,860	$ 63,362,412	$ 67,164,156	$ 71,194,006
15	$ (19,255,768)	$ (20,411,115)	$ (21,635,781)	$ (22,933,928)	$ (24,309,964)	$ (25,768,562)	$ (27,314,676)	$ (28,953,556)	$ (30,690,769)	$ (32,532,216)	$ (34,484,149)	$ (36,553,198)
16	$ 21,128,063	$ 22,395,747	$ 23,739,492	$ 25,163,861	$ 26,673,693	$ 28,274,114	$ 29,970,561	$ 31,768,795	$ 33,674,922	$ 35,695,418	$ 37,837,143	$ 40,107,371
17	$ 40,982,568	$ 43,441,522	$ 46,048,014	$ 46,897,933	$ 49,711,809	$ 52,694,517	$ 55,856,188	$ 59,207,559	$ 62,760,013	$ 66,525,614	$ 70,517,151	$ 74,748,180
18	$ 4,435,234	$ 4,449,184	$ 4,477,084	$ 4,700,284	$ 5,146,684	$ 5,453,584	$ 5,551,234	$ 5,551,234	$ 5,551,234	$ 5,551,234	$ 5,551,234	$ 5,551,234
19	$ 339,942	$ 391,776	$ 443,610	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510
20	$ 45,757,744	$ 48,282,482	$ 50,968,708	$ 52,064,726	$ 55,325,002	$ 58,614,611	$ 61,873,932	$ 65,225,303	$ 68,777,757	$ 72,543,357	$ 76,534,894	$ 80,765,923
21												
22	$ 54,664,395	$ 56,564,778	$ 58,677,239	$ 59,933,319	$ 64,163,109	$ 67,826,882	$ 70,622,710	$ 73,126,638	$ 75,831,648	$ 78,749,806	$ 81,893,899	$ 85,277,485
23	$ 67,544,045	$ 73,936,144	$ 77,318,171	$ 78,385,648	$ 79,584,898	$ 80,948,101	$ 82,485,094	$ 84,206,305	$ 86,122,787	$ 88,246,256	$ 90,589,131	$ 93,164,577
24												
25	$ (12,879,649)	$ (17,371,366)	$ (18,640,932)	$ (18,452,329)	$ (15,421,788)	$ (13,121,219)	$ (11,862,384)	$ (11,079,667)	$ (10,291,139)	$ (9,496,450)	$ (8,695,232)	$ (7,887,092)
26	12/31/2025	12/31/2026	12/31/2027	12/31/2028	12/31/2029	12/31/2030	12/31/2031	12/31/2032	12/31/2033	12/31/2034	12/31/2035	12/31/2036
27												
28												
29												
30												
31	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
32												
33	$ 40,000,000	$ 40,000,000	$ 17,671,024									
34	$ 302,328,976	$ 342,328,976	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
35	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
36	$ 302,328,976	$ 342,328,976	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
37	$ (82,764,806)	$ (92,315,784)	$ (102,359,783)	$ (112,403,782)	$ (122,447,782)	$ (132,491,781)	$ (142,535,780)	$ (152,579,779)	$ (162,623,779)	$ (172,667,778)	$ (182,711,777)	$ (192,755,777)
38	$ (32,410,698)	$ (36,150,861)	$ (40,084,091)	$ (44,017,321)	$ (47,950,551)	$ (51,883,781)	$ (55,817,012)	$ (59,750,242)	$ (63,683,472)	$ (67,616,702)	$ (71,549,932)	$ (75,483,162)
39	$ 187,153,472	$ 213,862,331	$ 217,556,126	$ 203,578,896	$ 189,601,667	$ 175,624,438	$ 161,647,208	$ 147,669,979	$ 133,692,750	$ 119,715,520	$ 105,738,291	$ 91,761,061
40	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
41	$ 20,530,736	$ 23,460,698	$ 23,865,907	$ 22,332,605	$ 20,799,303	$ 19,266,001	$ 17,732,699	$ 16,199,397	$ 14,666,095	$ 13,132,793	$ 11,599,490	$ 10,066,188
42												
43	$ 38,238,389.57	$ 40,532,692.95	$ 42,964,654.53	$ 45,542,533.80	$ 48,275,085.83	$ 51,171,590.97	$ 54,241,886.43	$ 57,496,399.62	$ 60,946,183.60	$ 64,602,954.61	$ 68,479,131.89	$ 72,587,879.80
44	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
45	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
46	$ 38,238,390	$ 40,532,693	$ 42,964,655	$ 45,542,534	$ 48,275,086	$ 51,171,591	$ 54,241,886	$ 57,496,400	$ 60,946,184	$ 64,602,955	$ 68,479,132	$ 72,587,880
47	$ 8,434,978	$ 9,550,978	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999
48	$ 339,942	$ 391,776	$ 443,610	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510

	AH	AI
1		
2	2037	
3		
4		
5	$ 360,000,000	
6	$ (161,031,024)	
7	$ 198,968,976	
8	$ (118,976,510)	
9	$ (46,591,201)	
10	$ 33,401,265	
11	10.97%	
12	$ 3,664,119	
13		
14	$ 75,465,646	
15	$ (38,746,389)	
16	$ 42,513,814	
17	$ 79,233,071	
18	$ 5,551,234	
19	$ 466,510	
20	$ 85,250,814	
21		
22	$ 88,914,933	$ 1,489,097,104
23	$ 95,986,548	$ 1,736,479,969
24		
25	$ (7,071,615)	**$ (247,382,865)**
26	12/31/2037	
27		$ (247,382,865)
28		
29		
30		
31	2037	
32		
33		$ 117,421,024
34	$ 360,000,000	
35	$ -	
36	$ 360,000,000	
37	$ (202,799,776)	
38	$ (79,416,392)	
39	$ 77,783,832	
40	10.97%	
41	$ 8,532,886	
42		
43	$ 76,943,152.59	
44	$ -	
45	$ -	
46	$ 76,943,153	
47	$ 10,043,999	
48	$ 466,510	

	A	B	C	D	E	F	G	H	I
49	Total OE					$ 84,800	$ 127,832	$ 198,348	$ 294,577
50									
51	Total E(m) Gypsum to On-site Landfill as Calculated					$ 565,309	$ 5,226,561	$ 11,770,141	$ 19,774,813
52	Total E(m) Gypsum to On-site Landfill per KU					$ 565,309	$ 5,226,225	$ 11,769,378	$ 19,773,528
53									
54	Calculation Check Difference					$ -	$ 336	$ 763	$ 1,285
55									
56									
57	Site E/F	Hauling cost of Ash 2.25 mile round trip							
58		Haul Road Maintenance							
59	Total								
60	Reduce by 50% for Site M					$ -	$ -	$ -	$ -
61	**Difference**		**PVRR**	**7.81%**	**$ (21,865,903)**				

	J	K	L	M	N	O	P	Q	R	S	T	U
49	$ 24,380,117	$ 26,056,704	$ 27,290,868	$ 28,578,421	$ 29,956,559	$ 31,612,174	$ 33,594,783	$ 35,539,810	$ 37,366,152	$ 39,187,991	$ 41,114,332	$ 43,707,279
50												
51	$ 44,706,579	$ 46,601,539	$ 46,978,148	$ 47,430,316	$ 48,060,812	$ 49,736,723	$ 52,503,105	$ 54,636,554	$ 55,813,660	$ 56,602,313	$ 57,495,468	$ 61,137,686
52	$ 44,705,239	$ 46,600,208	$ 46,976,843	$ 47,458,553	$ 48,044,547	$ 48,653,648						
53												
54	$ 1,340	$ 1,331	$ 1,305	$ (28,237)	$ 16,265	$ 1,083,075						
55												
56												
57	$ 2,822,723	$ 2,992,086	$ 3,171,612	$ 3,361,908	$ 3,563,623	$ 3,777,440	$ 4,004,087	$ 4,244,332	$ 4,498,992	$ 4,768,931	$ 5,055,067	$ 5,358,371
58	$ 53,529	$ 56,741	$ 60,145	$ 63,754	$ 67,579	$ 71,634	$ 75,932	$ 80,488	$ 85,317	$ 90,436	$ 95,862	$ 101,614
59	$ 2,876,252	$ 3,048,827	$ 3,231,757	$ 3,425,662	$ 3,631,202	$ 3,849,074	$ 4,080,018	$ 4,324,820	$ 4,584,309	$ 4,859,367	$ 5,150,929	$ 5,459,985
60	$ 1,438,126	$ 1,524,414	$ 1,615,878	$ 1,712,831	$ 1,815,601	$ 1,924,537	$ 2,040,009	$ 2,162,410	$ 2,292,154	$ 2,429,684	$ 2,575,465	$ 2,729,993
61												

	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG
49	$ 47,013,309	$ 50,475,447	$ 53,452,264	$ 56,053,043	$ 58,785,595	$ 61,682,100	$ 64,752,395	$ 68,006,908	$ 71,456,692	$ 75,113,463	$ 78,989,641	$ 83,098,389
50												
51	$ 67,544,045	$ 73,936,144	$ 77,318,171	$ 78,385,648	$ 79,584,898	$ 80,948,101	$ 82,485,094	$ 84,206,305	$ 86,122,787	$ 88,246,256	$ 90,589,131	$ 93,164,577
52												
53												
54												
55												
56												
57	$ 5,679,873	$ 6,020,666	$ 6,381,906	$ 6,764,820	$ 7,170,709	$ 7,600,952	$ 8,057,009	$ 8,540,429	$ 9,052,855	$ 9,596,026	$ 10,171,788	$ 10,782,095
58	$ 107,711	$ 114,174	$ 121,024	$ 128,285	$ 135,982	$ 144,141	$ 152,790	$ 161,957	$ 171,675	$ 181,975	$ 192,894	$ 204,467
59	$ 5,787,584	$ 6,134,839	$ 6,502,930	$ 6,893,105	$ 7,306,692	$ 7,745,093	$ 8,209,799	$ 8,702,387	$ 9,224,530	$ 9,778,002	$ 10,364,682	$ 10,986,563
60	$ 2,893,792	$ 3,067,420	$ 3,251,465	$ 3,446,553	$ 3,653,346	$ 3,872,547	$ 4,104,899	$ 4,351,193	$ 4,612,265	$ 4,889,001	$ 5,182,341	$ 5,493,281
61												

	AH	AI
49	$ 87,453,661	
50		
51	$ 95,986,548	
52		
53		
54		
55		
56		
57	$ 11,429,021	
58	$ 216,735	
59	$ 11,645,756	
60	$ 5,822,878	
61		

Cell: D16
Comment: John Walters:
Insert $9.00 for Limestone Backhaul calculation

	A	B	C	D	E	F
1	Revenue Requirments Summary					
2	2009 Amended Plan - Offsite Gypsum Disposal					
3						
4	Project 30		Ghent Landfill Phase I			2009
5						
6	Revenue Requirement					
7	Eligible Plant					$ 4,321,671
8	Less Gypsum Plant					$ -
9	Revised Eligible Plant					$ 4,321,671
10	Less Accumulated Depreciation					
11	Less Deferred Tax Balance					
12	Environmental Compliance Rate Base					$ 4,321,671
13	Rate of Return					11.1%
14						$ 480,509
15						
16	Operating Expenses					$ 84,800
17	less Gypsum to On-site Landfill					
18	Gypsum to Sterling (800,000 tons)					
19	Net Operating					$ 84,800
20	Annual Depreciation					
21	Annual Property Tax Expense					
22	Total OE					$ 84,800
23						
24	Total E(m) Gypsum to Sterling					$ 565,309
25	Total E(m) Gypsum to On-site Landfill					$ 565,309
26						
27	Difference					$ -

	G	H	I	J	K	L	M	N
1								
2								
3								
4	2010	2011	2012	2013	2014	2015	2016	2017
5								
6								
7	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 203,254,220	$ 203,969,979
8	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
9	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 203,254,220	$ 203,969,979
10				$ (5,110,443)	$ (10,744,623)	$ (16,396,576)	$ (22,067,369)	$ (27,758,131)
11				$ (732,114)	$ (3,915,341)	$ (6,717,677)	$ (9,168,992)	$ (11,289,232)
12	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 185,291,361	$ 187,281,989	$ 179,464,723	$ 172,017,859	$ 164,922,616
13	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
14	$ 5,098,729	$ 11,571,793	$ 19,480,236	$ 20,326,462	$ 20,544,834	$ 19,687,280	$ 18,870,359	$ 18,092,011
15								
16	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244	$ 23,991,239
17				$ -	$ -	$ -	$ -	$ -
18				$ -	$ -	$ -	$ -	$ -
19	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244	$ 23,991,239
20				$ 5,110,443	$ 5,634,180	$ 5,651,953	$ 5,670,793	$ 5,690,762
21	$ 6,483	$ 69,718	$ 158,229	$ 266,366	$ 279,017	$ 286,798	$ 279,274	$ 271,751
22	$ 127,832	$ 198,348	$ 294,577	$ 24,380,117	$ 26,056,704	$ 27,290,868	$ 28,583,311	$ 29,953,752
23								
24	$ 5,226,561	$ 11,770,141	$ 19,774,813	$ 44,706,579	$ 46,601,539	$ 46,978,148	$ 47,453,670	$ 48,045,763
25	$ 5,226,225	$ 11,769,378	$ 19,773,528	$ 44,705,239	$ 46,600,208	$ 46,976,843	$ 47,458,553	$ 48,044,547
26								
27	$ 336	$ 763	$ 1,285	$ 1,340	$ 1,331	$ 1,305	$ (4,883)	$ 1,216

	O	P
1		
2		
3		
4	2018	
5		
6		
7	$ 203,969,979	
8	$ -	
9	$ 203,969,979	
10	$ (33,448,893)	
11	$ (13,098,586)	
12	$ 157,422,500	
13	10.97%	
14	$ 17,269,248	
15		
16	$ 25,430,713	
17	$ -	
18	$ -	
19	$ 25,430,713	
20	$ 5,690,762	
21	$ 264,317	
22	$ 31,385,792	
23		
24	$ 48,655,040	
25	$ 48,653,648	
26		
27	$ 1,392	$ 4,084

GHENT STATION ALTERNATIVE FOR CCP/GYPSUM DISPOSAL

Background

Sterling Materials is an active underground limestone mine located in Verona, Kentucky, approximately 20 miles from Kentucky Utilities Company's Ghent Station. Sterling currently mines between 1,000,000 and 1,600,000 tons of limestone per year, and has been in operation since 2000.

In addition to producing limestone for the general aggregate construction market, Sterling also mines high calcium limestone for Mississippi Lime Company for use in Mississippi Lime's kiln located on Sterling's property. This high calcium limestone is also suitable for use as scrubber stone in Ghent's limestone FGD scrubber system.

In November 2010, Sterling obtained a Special Waste Permit from the Kentucky Department of Environmental Protection, Division of Waste Management allowing disposal of FGD gypsum in Sterling's mine.

KU has proposed building a new landfill at Ghent in three phases for an estimated total cost of $360,000,000 to handle the plant's three coal combustion by-products ("CCPs") through 2037[1]. KU forecasted the following wet storage CCP production volumes for Ghent Station (Cubic Yards):

Year	Fly Ash	Bottom Ash	Gypsum
2009	540,000	140,000	880,000
2010	550,000	150,000	1,090,000
2011	580,000	150,000	1,120,000
2012	550,000	150,000	1,060,000
2013	550,000	150,000	1,090,000

Source: Coal Combustion Byproduct Plan for Ghent Station dated June 2009 (the "Ghent CCP Plan" attached as Exhibit A)

Ghent's FGD gypsum is currently placed in a wet gypsum stacking pond. Ghent also has a contract to supply CertainTeed, Inc. with gypsum, and KU has estimated that CertainTeed will purchase approximately 222,000 cubic yards per year of gypsum from Ghent. As a result, Ghent will be required to continue diverting a portion of its gypsum production to the gypsum stacking pond.

The Ghent CCP Plan outlines KU's comparative analysis of the various alternatives to reach the least cost PVRR of disposing of Ghent's CCPs. One of the alternatives considered was off-site disposal at Valley View Landfill near Sulfer, Kentucky, approximately 25 miles from Ghent Station.[2] Disposal at Valley View was however dismissed because of the high cost of loading, hauling and landfill tipping fees.[3] Although, KU has redacted from public view the cost associated with the Valley View disposal alternative, based on

[1] Phase I cost thru 2018 of $203,969,979 as set forth in Revenue Requirement Summary for Project 30 – Ghent Landfill Phase I attached as Exhibit B. Total project capital cost estimated to be $360,000,000 per direct testimony of John Voyles before the Kentucky Public Service Commission in Case No. 2009-00197 attached as Exhibit C.
[2] Ghent CCP Plan, footnote 14, page 10.
[3] Supra at page 19.

other information contained in information provided to the KY PSC, it is estimated that the projected cost for disposal at Valley View in 2009 was approximately $29.65 per ton.[4]

Alternative Proposal for Gypsum Disposal at Sterling Materials' Mine

Sterling Materials is proposing that Ghent send all of its gypsum production (net of sales CertainTeed) to Sterling mine for disposal, with Ghent's ash being disposed of in either the new landfill as proposed on Site E/F, or in a new landfill located at Site M as considered by Case 14/28 in the Ghent CCP Plan (See page 18-19). Sterling estimates that the PVRR cost of this alternative is at least $79,000,000 less than KU's proposal for a new landfill at Site E/F, as set forth in Exhibit D.

Assumptions in Exhibit D analysis

1. Total price for loading, hauling and fees to Sterling Materials of $10.50 in 2013.
2. Net CCP production of approximately 868,000 cubic yards (1,090,000 – 222,000 to CertainTeed).
3. Cubic yards to ton conversion factor – cy x 1.155 (based on Trans Ash conversion assumption of 1.3 MCY equals 1.5 million tons as hauled - see page 10 of Ghent CCP Plan).
4. Reduce Phase I construction cost by $53,110,000[5] by continuing to place gypsum temporarily in existing gypsum stacking pond until shipment to Sterling.
   - Dry Gypsum Handling System $36,800,000
   - Gypsum Fines Project $12,600,000
   - Gypsum Dewatering Facility Earthwork $ 3,710,000
5. Phase III landfill construction cost eliminated. Phase II construction delayed from 2018 to 2030.
   - Phase I capacity – 14.7 MCY (See Ghent CCP Plan page 12)
   - Ash Production – 700,000 MCY (See Ghent CCP Plan page 7)
   - Phase I life until full – 21 years
6. Total Phase II and III construction costs - $157,421,024 (see Footnote 1)
   - Phase II construction cost - $40,000,000
   - Phase III construction cost - $117,421,024
7. Eliminate following Ghent Landfill Operating Expenses 2013 Estimates (See Ghent Landfill Operating Expenses - Phase I attached as Exhibit E)
   - Dry Gypsum Handling System $ 682,495
   - Hauling Gypsum to Landfill
     - Loading $1,746,384
     - Phase I-2.25 mile round trip $3,997,156
     - Landfilling Gypsum $3,143,492
8. Continue 2018 Annual Depreciation Rate of 2.7899% on Eligible Capital through 2037
9. Continue 2018 Property Tax Expense Rate of .1259% on Eligible Capital through 2037
10. Apply KU O&M Escalation Rate of 6% (See Ghent CCP Plan page 22)

[4] Total beneficial reuse cost of approximately $8,900,000 for 1,500,000 tons of Gypsum to Trans Ash, Inc. equals $5.93/ton (See Comprehensive Strategy for Management of Coal Combustion Byproducts – June 2009), which is almost 80% less than per unit volume basis than disposal at Valley View. (Ghent CCP Plan at pages 18 and 20).
[5] See Ghent Landfill Capital Expenditures Phase I attached as Exhibit F.

Purchase of Scrubber Stone from Sterling

Sterling Materials mines a high calcium seam of limestone in its 2nd and 3rd levels that will meet, and possibly exceed, Ghent's calcium specifications for scrubber stone. Based on general industry knowledge, without verification, it is believed that Ghent's current cost of scrubber stone FOB plant is approximately $8.50.

The proposed price of $10.50 for gypsum disposal at Sterling includes $4.50 per ton for transportation, based upon an assumed round trip turn of 1.5 hours, and $75.00 per hour to haul 25 tons.

Sterling is proposing to sell high calcium limestone to Ghent for $.7.00 per ton (as of October, 2011) and backhauling the stone to Ghent. If a $1.50 per ton trucking fee is assigned to the transportation of the limestone, Ghent will incur no additional cost for it scrubber stone. However, reducing the transportation component of the gypsum disposal cost by $1.50 reduces the proposed disposal cost from $10.50 to $9.00 per ton, and correspondingly increases the PVRR saving advantage from approximately $80,000,000 to over $100,000,000. (See Exhibit G).

Construct Ash Storage Pond at Site M

Although KU has redacted from public view information provided to the Kentucky PSC on the cost associated with an ash landfill on Site M, it would generally appear that using Site M as an ash landfill verses Site E/F would substantially reduce ash disposal cost and further increase the PVRR saving from disposing all of Ghent's gypsum at Sterling.

Site M is substantially closer to Ghent than Site E/F (Ghent CCP Plan page 12 and Exhibit H). The estimated cost of hauling fly and bottom ash to Site E/F is $2,822,723 in 2013, and the corresponding haul Road maintenance cost is $53,529. Even reducing those costs by a modest 50% for the haul to Site M verses site E/F would produce another $21,800,000 in PVRR savings compared to CCP disposal at Ghent under Project 30.

From: Smith, Timothy (Fuels)(/O=LGE/OU=LOUISVILLE/CN=RECIPIENTS/CN=E008722)
To: Guelda, Thomas
CC:
BCC:
Subject: FW: Ghent Gyspum Disposal
Sent: 02/23/2012 03:23:15 PM -0500 (EST)
Attachments: LGE - KU Sterling Materials.pdf - 3 MB;

FYI

From: John Walters [mailto:johnwalters@sterlingventures.com]
Sent: Monday, October 10, 2011 1:36 PM
To: Smith, Timothy
Cc: Joyce, Jeff; Pfeiffer, Caryl; Tapp Sr., Kenny (Electric); Gilbert, Bill G.; Dotson, Mike; Puckett, Paul
Subject: RE: Ghent Gyspum Disposal

Tim

I just found out that you have moved over to the Trimble plant. It was my understanding that meetings were being set up at LG&E to discuss the attached the week of September 19th and /or the week of September 26th. Do you know the status of the discussion on Gypsum storage, and who is taking over for you regarding this at Ghent?

Thanks

John

From: John Walters
Sent: Tuesday, September 13, 2011 5:15 PM
To: timothy.smith@lge-ku.com; 'jeff.joyce@lge-ku.com'; 'caryl.pfeiffer@lge-ku.com'; 'kenny.tapp@lge-ku.com'; 'bill.gilbert@lge-ku.com'; 'mike.dotson@lge-ku.com'; 'paul.puckett@lge-ku.com'
Cc: Alex Boone
Subject: Ghent Gyspum Disposal

Please see attached

John W. Walters, Jr.
Sterling Ventures, LLC
376 South Broadway
Lexington, KY 40508
Phone (859) 259-9600
Cell 859-621-3990
Fax (859) 259-9601
johnwalters@sterlingventures.com

From: Pfeiffer, Caryl(/O=LGE/OU=LOUISVILLE/CN=RECIPIENTS/CN=E012383)
To: Straight, Scott; Joyce, Jeff; Tapp Sr., Kenny (Electric); Puckett, Paul
CC: Dotson, Mike; Gilbert, Bill G.; Smith, Timothy (Fuels)
BCC:
Subject: FW: Ghent Station Gypsum Disposal
Sent: 11/07/2011 10:58:46 AM -0500 (EST)
Attachments:

FYI

From: John Walters [mailto:johnwalters@sterlingventures.com]
Sent: Monday, November 07, 2011 10:24 AM
To: Pfeiffer, Caryl
Subject: RE: Ghent Station Gypsum Disposal

Thanks for the update.
John

From: Pfeiffer, Caryl [mailto:Caryl.Pfeiffer@lge-ku.com]
Sent: Monday, November 07, 2011 10:22 AM
To: John Walters
Cc: Alex Boone
Subject: RE: Ghent Station Gypsum Disposal

John
I saw Scott on Friday and he said he had received your updated proposal and that his group was coordinating the analysis of the information with our Energy Planning, Forecasting and Analysis people and plant personnel. He said he would get back with you all once the internal analysis was completed.
Caryl

From: John Walters [mailto:johnwalters@sterlingventures.com]
Sent: Friday, November 04, 2011 11:15 AM
To: Pfeiffer, Caryl
Cc: Alex Boone
Subject: Ghent Station Gypsum Disposal

Caryl
Last Thursday, I sent Scott Straight and John Voyles an updated PVRR analysis comparing the alternative of using of Sterling's underground mine for Ghent's gypsum disposal to the current plan to place excess gypsum in the new landfill. The update was based on additional information from more recent PSC filings, and that update, along with the new assumptions, is attached. Since I first provided our PVRR savings analysis on September 17, I have not been able to talk to anyone about the proposal. As I indicated in my cover letter in September, I necessarily had to make assumptions in calculating the PVRR saving - most importantly the projected cost and timing of phases 2 and 3 of the new landfill. Am I correct in assuming that a lack of any response to a potential $80,000,000 PVRR saving is the result of my analysis and/or assumption being grossly incorrect? If that is the case, could someone let me know what errors I made in my analysis? I was hoping to provide an alternative that substantially delayed the need to build phase 2, and eliminated entirely the need for phase 3.
Also, I have not received any response to our updated proposal, as requested by Tim Smith, to use our mine for disposal of 1,500,000 tons of gypsum from Ghent's stacking pond. Is Ghent still looking at a short term plan to dispose of gypsum in the stacking pond? I understand that Tim Smith has been transferred to Trimble County. If there is still a need with respect to Ghent's gypsum stacking pond, who should we be talking to?
Any help would be appreciated.
John

John W. Walters, Jr.
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376 South Broadway
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Phone (859) 259-9600
Cell (859) 621-3990
Fax (859) 259-9601
johnwalters@sterlingventures.com

From: John Walters(johnwalters@sterlingventures.com)
To: Smith, Timothy (Fuels); Joyce, Jeff; Pfeiffer, Caryl; Tapp Sr., Kenny (Electric); Gilbert, Bill G.; Dotson, Mike; Puckett, Paul
CC: Alex Boone
BCC:
Subject: Ghent Gyspum Disposal
Sent: 09/13/2011 05:15:04 PM -0400 (EDT)
Attachments: LGE - KU Sterling Materials.pdf - 3 MB;

Please see attached

John W. Walters, Jr.
Sterling Ventures, LLC
376 South Broadway
Lexington, KY 40508
Phone (859) 259-9600
Cell 859-621-3990
Fax (859) 259-9601
johnwalters@sterlingventures.com

From: John Walters(johnwalters@sterlingventures.com)
To: Smith, Timothy (Fuels)
CC: Joyce, Jeff; Pfeiffer, Caryl; Tapp Sr., Kenny (Electric); Gilbert, Bill G.; Dotson, Mike; Puckett, Paul
BCC:
Subject: RE: Ghent Gyspum Disposal
Sent: 10/10/2011 01:35:47 PM -0400 (EDT)
Attachments: LGE - KU Sterling Materials.pdf - 3 MB;

Tim
I just found out that you have moved over to the Trimble plant. It was my understanding that meetings were being set up at LG&E to discuss the attached the week of September 19th and /or the week of September 26th. Do you know the status of the discussion on Gypsum storage, and who is taking over for you regarding this at Ghent?
Thanks
John

From: John Walters
Sent: Tuesday, September 13, 2011 5:15 PM
To: timothy.smith@lge-ku.com; 'jeff.joyce@lge-ku.com'; 'caryl.pfeiffer@lge-ku.com'; 'kenny.tapp@lge-ku.com'; 'bill.gilbert@lge-ku.com'; 'mike.dotson@lge-ku.com'; 'paul.puckett@lge-ku.com'
Cc: Alex Boone
Subject: Ghent Gyspum Disposal
Please see attached
John W. Walters, Jr.
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Lexington, KY 40508
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Cell 859-621-3990
Fax (859) 259-9601
johnwalters@sterlingventures.com

From: Smith, Timothy (Fuels)(/O=LGE/OU=LOUISVILLE/CN=RECIPIENTS/CN=E008722)
To: Pfeiffer, Caryl; Joyce, Jeff; Tapp Sr., Kenny (Electric); Gilbert, Bill G.; Dotson, Mike; Puckett, Paul
CC:
BCC:
Subject: RE: Ghent Gyspum Disposal
Sent: 09/20/2011 03:02:44 PM -0400 (EDT)
Attachments:

Alex Boone, President of Sterling Materials showed up at the plant today and wanted permission to drive around our ash/gypsum facilities. The guard gate called me and I told him we would require a KU representative to be with him and that we didn't have anyone available right now. He said he would just come back another time.
I reviewed their proposal and found it to be full of inaccurate assumptions in how they calculated their $100M savings.
Also, their pricing for storage is also still too high. They want us to pay them $5.50/ton plus pay the $650k to develop a shaft at their mine plus us to be responsible for reclaiming, dewatering, loading and trucking of the material which could very easily take the total price well over the $10.50 ton that they suggest.
Thanks
Tim

From: Pfeiffer, Caryl
Sent: Monday, September 19, 2011 1:41 PM
To: Smith, Timothy; Joyce, Jeff; Tapp Sr., Kenny (Electric); Gilbert, Bill G.; Dotson, Mike; Puckett, Paul
Subject: RE: Ghent Gyspum Disposal
Are we going to get a meeting or conference call together to discuss this?

From: John Walters [mailto:johnwalters@sterlingventures.com]
Sent: Tuesday, September 13, 2011 5:15 PM
To: Smith, Timothy; Joyce, Jeff; Pfeiffer, Caryl; Tapp Sr., Kenny (Electric); Gilbert, Bill G.; Dotson, Mike; Puckett, Paul
Cc: Alex Boone
Subject: Ghent Gyspum Disposal
Please see attached
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From: Pfeiffer, Caryl(/O=LGE/OU=LOUISVILLE/CN=RECIPIENTS/CN=E012383)
To: Smith, Timothy (Fuels); Joyce, Jeff; Tapp Sr., Kenny (Electric); Gilbert, Bill G.; Dotson, Mike; Puckett, Paul
CC:
BCC:
Subject: RE: Ghent Gyspum Disposal
Sent: 09/19/2011 01:41:04 PM -0400 (EDT)
Attachments:

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Sent: Tuesday, September 13, 2011 5:15 PM
To: Smith, Timothy; Joyce, Jeff; Pfeiffer, Caryl; Tapp Sr., Kenny (Electric); Gilbert, Bill G.; Dotson, Mike; Puckett, Paul
Cc: Alex Boone
Subject: Ghent Gyspum Disposal
Please see attached

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Cell 859-621-3990
Fax (859) 259-9601
johnwalters@sterlingventures.com

From: Farhat, Monica(/O=LGE/OU=LOUISVILLE/CN=RECIPIENTS/CN=E026288)
To: Schram, Chuck; Wilson, Stuart
CC:
BCC:
Subject: RE: Scrubber Stone RFQ
Sent: 03/26/2013 03:37:54 PM -0400 (EDT)
Attachments: 20120224_SterlingVenturesProposal_Ghent_2012ECR.docx - 30 KB;

In late 2011, Sterling proposed the following:

- $10.95/ton to haul and store gypsum
- $6.5/ton to supply limestone

Our analysis considered the proposal's impact to the station's CCP storage and limestone costs and ultimately concluded that the proposal was more costly than storing CCPs on-site and sourcing limestone from another supplier. We determined that Sterling's cost to transport gypsum would have to decrease from $10.95/ton to $8.75/ton to break-even with the Company's current plans for CCP storage and limestone supply (see attached for more details).

In the new proposal, Sterling has decreased the gypsum hauling cost and increased their limestone cost. It appears that their limestone cost is slightly more expensive than the other bidders ($9.80/ton versus $9.50/ton). Since their gypsum hauling cost of $6.75/ton is less than the break-even cost that was previously determined, it's not obvious to us that we shouldn't consider this proposal more carefully.

Thanks,
Monica

From: Wilson, Stuart
Sent: Tuesday, March 26, 2013 11:35 AM
To: Farhat, Monica
Subject: FW: Scrubber Stone RFQ

Email from Carol…

From: Schram, Chuck
Sent: Tuesday, March 26, 2013 11:24 AM
To: Wilson, Stuart
Subject: FW: Scrubber Stone RFQ

fyi

From: Pfeiffer, Caryl
Sent: Monday, March 25, 2013 2:40 PM
To: Schram, Chuck
Subject: FW: Scrubber Stone RFQ

Walters/Sterling responded to our recent scrubber stone solicitation with the following proposal:
Limestone delivered into Ghent and Trimble County with the haul-back of gypsum (Ghent gypsum to the Sterling quarry and Trimble County gypsum to the Ghent landfill). All truck delivery (they estimate 20 hours/day). No bid for Mill Creek. No bid of limestone alone to any plant or combination of plants. They say they need to have a contract in place by June 30th.

Ghent: $9.80/ton of stone plus $6.75/ton for gypsum haul-back
Trimble County: $9.58/ton of stone plus $6.00/ton for gypsum haul-back

Our low bidders are proposing $7.00/ton of stone plus $2.50/ton barging cost (to Crounse) for delivery into Mill Creek, Trimble County and Ghent (if we carve out any plant(s) from their proposals, then they have the ability to come back and raise their price as part of their bid responses).

Thus, Sterling is not competitive on the stone to begin with and not only would we have to make modifications at each of the plants to accept delivery of stone by truck, but also we would have to pay for the haul-back of gypsum. I feel comfortable telling them they are not the low bidder, but I would like to repeat some of the verbiage we used earlier to tell them why they were not a viable disposal alternative for gypsum.

From: John Walters [mailto:johnwalters@sterlingventures.com]
Sent: Tuesday, March 19, 2013 11:07 AM
To: Gilbert, Bill G.; Pfeiffer, Caryl; Alex Boone; Dotson, Mike
Subject: Scrubber Stone RFQ

Bill
Could you give me an update on the normalization process in connection with the January 22, 2013 RFQ for scrubber limestone at Mill Creek, Trimble County and Ghent? I know that because our bid includes gypsum disposal, including the cost saving from delaying the construction of Phases 2 and 3 of the Ghent Landfill, and the most cost effective means of dealing with Trimble County CCPs, complicates the normalization process.
In addition, I assume there are cost consideration, both increases and decreases, from delivering limestone by truck verses barge. Several years ago, we began discussions with plant personnel at Ghent about the efficiencies of dedicating Ghent's barge load-out equipment to coal only, and building a hopper and conveyor on site to convey stone delivered by truck directly into your limestone inventory pile. We would be more than happy to meet with you and/or Ghent and Trimble County operations personnel to answer questions or discuss issues or concerns about truck delivery of limestone.
Again, we appreciate the opportunity to work with you both as a limestone source, and to develop options to lower the overall cost to you and your customers of land-filling CCPs.
John

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Lexington, KY 40508
Phone (859) 259-9600
Fax (859) 259-9601

johnwalters@sterlingventures.com

From: Farhat, Monica(/O=LGE/OU=LOUISVILLE/CN=RECIPIENTS/CN=E026288)
To: Wilson, Stuart
CC:
BCC:
Subject: RE: Scrubber Stone RFQ
Sent: 03/26/2013 03:02:50 PM -0400 (EDT)
Attachments:

In late 2011, Sterling proposed the following:

- $10.95/ton to haul and store gypsum
- $6.5/ton of limestone

Our analysis determined that the cost to transport gypsum has to decrease from $10.95/wet to $8.75/ton to break-even with the Company's current landfill plan and limestone supply. Please refer to attached for more details.

Sterling has decreased the gypsum hauling cost and increased their limestone stone cost in this new proposal. The hauling cost of $6.75/ton is less than the break-even cost that was previously determined and the limestone cost is in par with our current supplier, so we recommend analyzing the new proposal.

From: Farhat, Monica
Sent: Tuesday, March 26, 2013 2:39 PM
To: Wilson, Stuart
Subject: RE: Scrubber Stone RFQ

In late 2011, Sterling Ventures submitted a proposal to store all gypsum from the Ghent Station (net of sales to CertainTeed) in its offsite storage facility for $10.95/wet ton. Additionally, Sterling proposed to backhaul high calcium limestone to the Ghent station for $6.50/ton.

Sterling Ventures claimed that by sending gypsum to their storage facility instead of the landfill, the Company can realize $53 million in capital savings by:

- deferring subsequent landfill phases
- avoid installing a dry gypsum handling system
- avoid completing the gypsum fines project
- avoid constructing a gypsum dewatering facility
- more savings could be possible by reverting to a CCR storage alternative from the 2009 ECR filing that included a smaller landfill located closer to the Ghent station

Our analysis considered the claims above and it was determined that in order to save the $53 million, Ghent will need to continue using the gypsum stack, which is not an option due to the costs and risks associated with operating the stack. The Company plans to retire the gypsum stack when the new landfill is in service and therefore will need to spend the capital on the dry gypsum handling system, gypsum fines project, and gypsum dewatering facility. In addition, selecting a different landfill alternative at the Ghent station is not a viable option because this would require new environmental permits and delay the project by two years.

Our analysis determined that the cost to transport gypsum has to decrease from $10.95/wet ton to $7.5/wet to break-even with the Company's current landfill plan. However, the option to purchase limestone from Sterling Ventures at $6.5/ton was attractive enough that when combined with transporting gypsum increased the break-even cost to $8.75/ton which was still lower than their asking price.

Thanks,
Monica

From: Wilson, Stuart
Sent: Tuesday, March 26, 2013 11:35 AM

To: Farhat, Monica
Subject: FW: Scrubber Stone RFQ

Email from Carol…

From: Schram, Chuck
Sent: Tuesday, March 26, 2013 11:24 AM
To: Wilson, Stuart
Subject: FW: Scrubber Stone RFQ

fyi

From: Pfeiffer, Caryl
Sent: Monday, March 25, 2013 2:40 PM
To: Schram, Chuck
Subject: FW: Scrubber Stone RFQ

Walters/Sterling responded to our recent scrubber stone solicitation with the following proposal:
Limestone delivered into Ghent and Trimble County with the haul-back of gypsum (Ghent gypsum to the Sterling quarry and Trimble County gypsum to the Ghent landfill). All truck delivery (they estimate 20 hours/day). No bid for Mill Creek. No bid of limestone alone to any plant or combination of plants. They say they need to have a contract in place by June 30th.

Ghent: $9.80/ton of stone plus $6.75/ton for gypsum haul-back
Trimble County: $9.58/ton of stone plus $6.00/ton for gypsum haul-back

Our low bidders are proposing $7.00/ton of stone plus $2.50/ton barging cost (to Crounse) for delivery into Mill Creek, Trimble County and Ghent (if we carve out any plant(s) from their proposals, then they have the ability to come back and raise their price as part of their bid responses).

Thus, Sterling is not competitive on the stone to begin with and not only would we have to make modifications at each of the plants to accept delivery of stone by truck, but also we would have to pay for the haul-back of gypsum. I feel comfortable telling them they are not the low bidder, but I would like to repeat some of the verbiage we used earlier to tell them why they were not a viable disposal alternative for gypsum.

From: John Walters [mailto:johnwalters@sterlingventures.com]
Sent: Tuesday, March 19, 2013 11:07 AM
To: Gilbert, Bill G.; Pfeiffer, Caryl; Alex Boone; Dotson, Mike
Subject: Scrubber Stone RFQ

Bill
Could you give me an update on the normalization process in connection with the January 22, 2013 RFQ for scrubber limestone at Mill Creek, Trimble County and Ghent? I know that because our bid includes gypsum disposal, including the cost saving from delaying the construction of Phases 2 and 3 of the Ghent Landfill, and the most cost effective means of dealing with Trimble County CCPs, complicates the normalization process.
In addition, I assume there are cost consideration, both increases and decreases, from delivering limestone by truck verses barge. Several years ago, we began discussions with plant personnel at Ghent about the efficiencies of dedicating Ghent's barge load-out equipment to coal only, and building a hopper and conveyor on site to convey stone delivered by truck directly into your limestone inventory pile. We would be more than happy to meet with you and/or Ghent and Trimble County operations personnel to answer questions or discuss issues or concerns about truck delivery of limestone.
Again, we appreciate the opportunity to work with you both as a limestone source, and to develop options to lower the overall cost to you and your customers of land-filling CCPs.
John

John W. Walters, Jr.
Sterling Ventures, LLC
376 South Broadway
Lexington, KY 40508
Phone (859) 259-9600
Fax (859) 259-9601

johnwalters@sterlingventures.com

From: Schram, Chuck(/O=LGE/OU=LOUISVILLE/CN=RECIPIENTS/CN=SCHRAMC)
To: Wilson, Stuart
CC:
BCC:
Subject: Fw: Sterling Ventures Gypsum Proposal
Sent: 01/20/2012 04:42:56 PM -0500 (EST)
Attachments: Exhibit 1.pdf - 147 KB; Exhibit 2.pdf - 319 KB; Exhibit 3.pdf - 319 KB; Exhibit 4.pdf - 186 KB;

From: Joyce, Jeff
Sent: Friday, January 20, 2012 03:18 PM
To: Schram, Chuck
Subject: FW: Sterling Ventures Gypsum Proposal

From: John Walters [mailto:johnwalters@sterlingventures.com]
Sent: Thursday, January 19, 2012 2:49 PM
To: Joyce, Jeff; Pfeiffer, Caryl
Cc: Alex Boone
Subject: Sterling Ventures Gypsum Proposal

Jeff

I understand from Scott Straight that you are now in charge of doing the PVRR comparative analysis of Sterling's proposal to use the new landfill at Ghent for ash only, with gypsum disposal at our underground mine. Attached is our effort at a PVRR comparative analysis of all gypsum going to Sterling, verses into your new landfill. We based our comparative PVRR analysis on the projected O&M and capital cost for the landfill that KU filed with the PSC in 2009, and confirmed in 2011.

Attached Exhibit 1 is a general summary of our proposal, as well as the assumptions used in the PVRR analysis of that proposal. Exhibits 2 and 3 are PVRR analyses under two separate scenarios. The first, Exhibit 2, is a straight PVRR comparison to the landfill, as detailed in the 2009 filings with the PSC, versus using our underground limestone mine for gypsum beneficial reuse disposal. In this scenario, our proposal is the least cost alternative by $260,498,235.00 (PVRR least cost alternative by $86,599,008.00).

Exhibit 3 is a PVRR comparison assuming KU purchases scrubber limestone from Sterling, which is then backhauled to Ghent. Here, our proposal is the least cost alternative by $342,795,003.00 (PVRR least cost alternative by $109,405,671.00). In both PVRR analyses, $222,368,117.00 of the saving comes from a reduction in Return on Equity from reduced capital costs. As you will see, Exhibit 3 assumes a delivered scrubber stone price of $8.50 ($7.00 stone with $1.50 trucking allocation out of the $4.50 round trip gypsum trucking), which based on documents filed with the PSC, should approximate the delivered cost of scrubber stone from Mulzer.

Exhibit 4 is the PVRR comparative analysis from Exhibits 2 and 3 in the table format that Charles Schram identified that you would use in your PVRR analysis of beneficial reuse opportunities.

I also understand from documents KU filed with the PSC that the landfill's CCP transport system cost may be significantly over the original projection, and that the projected capital cost of Phase I has increased from $204,000,000 to $283,000,000. Please note that the increase in the cost of Phase I has not been included in our PVRR analysis, and therefore the savings from our proposal may increase as a result of the additional capital required for Phase I.

As you can see from our projections, in addition to O&M cost savings, you can delay Phase II of the Ghent Landfill project by eleven years, and completely eliminate Phase III. You can also avoid purchasing gypsum handling equipment. However, these savings assume that all gypsum is beneficially reused at Sterling's underground mine starting with the opening of Phase I in 2013.

In Scott Straight's email to me indicating that you are now in charge of the PVRR comparative analysis, he stated that Sterling's proposal "could have merit in a few years to defer the next phased expansion of the landfill", but that "[t]he next phase of the landfill is years away…." I must admit that I am confused by Scott's conclusion. It would appear that if the ability to avoid placing gypsum in the Ghent landfill "could have merit in a few years," it also possibly has merit today. Our permit for your gypsum is approved and in place.

As indicated above, failing to take advantage of the Sterling opportunity in 2013 when the landfill opens would result in the unnecessary purchase of gypsum related equipment, and the placement of approximately 850,000 cubic yards per year of gypsum into the landfill, thereby reducing its life. The projected savings from our proposal between 2012 and 2019 (the projected opening of Phase II) is $41,900,000.00, without backhauling limestone, and $54,941,000.00 if you take advantage of the limestone backhaul option.

If you anticipate opening the landfill in 2013, planning needs to begin immediately if you are going to take advantage of our beneficial reuse opportunity. We need to address numerous details and logistics, as well as negotiate a contract. In addition, as indicated above, the greatest saving potential for you occurs when you purchase hi-calcium scrubber limestone from Sterling. My understanding from documents filed with the PSC, the existing contract with Mulzer Crushed Stone for Ghent's scrubber limestone is a 9-year contract ending late 2014, with an "opt-out" provision in 2012. I also understand KU's normal practice is to enter into long terms contracts for scrubber stone. If you want to take full advantage of the potential savings, we would also need to negotiate a contract for limestone.

There are obviously numerous details we need to discuss in order for you to complete your own PVRR analysis of our proposal. Could you please let me know within the next couple of days if you are planning to do your PVRR analysis now, or as Scott indicated, you will be delaying that analysis for a few years?

Thank you for your consideration. I look forward to hearing from you.

John

John W. Walters, Jr.
Sterling Ventures, LLC
376 South Broadway
Lexington, KY 40508
Phone (859) 259-9600
Cell (859) 621-3990
Fax (859) 259-9601

johnwalters@sterlingventures.com

From: Farhat, Monica(/O=LGE/OU=LOUISVILLE/CN=RECIPIENTS/CN=E026288)
To: Wilson, Stuart
CC:
BCC:
Subject: RE: Ghent Landfill Beneficial Reuse Opportunity
Sent: 12/12/2011 10:30:58 AM -0500 (EST)
Attachments:

Stuart,

Yes I have looked at this project back in August 2010 and it was a viable project and more cost effective than an offsite landfill. In summary to maintain minimum capacity levels in the gypsum stack and before the new landfill is available in January 2013, 82k tons had to be either disposed of in 2011-2012 in an offsite landfill or used by Sterling Ventures as structural fill. Sterling Ventures was ~$1.7M lower PVRR compared to the offsite landfill option. Please let me know if you need more details.

Thanks,
Monica

From: Wilson, Stuart
Sent: Monday, December 12, 2011 7:13 AM
To: Farhat, Monica
Subject: Fw: Ghent Landfill Beneficial Reuse Opportunity

Monica,

Please see Chuck's email. Any thoughts?

Stuart

From: Schram, Chuck
Sent: Monday, December 12, 2011 07:00 AM
To: Wilson, Stuart
Subject: FW: Ghent Landfill Beneficial Reuse Opportunity

Are you aware of this one?

From: John Walters [mailto:johnwalters@sterlingventures.com]
Sent: Saturday, December 10, 2011 5:15 PM
To: Schram, Chuck
Subject: Fwd: Ghent Landfill Beneficial Reuse Opportunity

---------- Forwarded message ----------
From: **John Walters** <johnwalters@sterlingventures.com>
Date: Sat, Dec 10, 2011 at 5:06 PM
Subject: Ghent Landfill Beneficial Reuse Opportunity
To: jeff.heun@lge-ku.com
Cc: Scott Straight <scott.straight@lge-ku.com>, Caryl Pfeiffer <caryl.pfeiffer@lge-ku.com>, john.voyles@lge-ku.com, charles.schram@lge-ku.com, Jeff Joyce <jeff.joyce@lge-ku.com>

Jeff

I understand from Scott Straight that you are evaluating the comparative PVRR cost projections for the beneficial reuse of Ghent's gypsum at Sterling Ventures' underground limestone mine. I am continuing to make minor adjustments to the

comparative projections as we learn more information. Attached is the latest PVRR cost comparison.

In PSC Case No. 2009-00197, Charles Schram submitted, as part of his testimony, the PVRR analysis table that the Company would use to evaluate new beneficial reuse opportunities that could minimize disposal cost by delaying or eliminating construction of future phases. I have added three worksheets (KU PVRR Project 30, PVRR SV Option1 and PVRR SV Option2) to the attached excel file. Those worksheets (also attached as pdfs) convert my original PVRR comparison worksheet to the format that Mr. Schram indicated would be used in this situation. I apologize for not providing the beneficial reuse savings projections in this format earlier.

As I have indicated in prior emails, the comparative PVRR projections are based on certain assumptions about the timing of the remaining $160 million construction costs of Phases 2 and 3 of the landfill. I have based my capital cost timing assumptions, and the O&M costs, on the retirement studies analysis in KU's recent Environmental Surcharge case. We would welcome the opportunity to meet with you about refining, correcting and updating the construction timing and cost assumptions in the attached.

I am also attaching, for your review, the Form 7059 for that we filed in July 2010, and a copy of the resulting Beneficial Reuse Special Waste Permit for Ghent's gypsum the we received in November, 2010.

Hopefully, our existing Beneficial Reuse Permit can provide a timely alternative that can delay or eliminate near and long term landfill construction costs and equipment purchases at Ghent, and result in significant savings for KU and its' customers.

Could you possibly confirm receipt of this email, and also let me know when you believe your preliminary analysis will be completed?

I look forward to hearing from you.

John Walters

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To: Wilson, Stuart
CC:
BCC:
Subject: FW: Ghent Landfill Beneficial Reuse Opportunity
Sent: 12/12/2011 07:00:44 AM -0500 (EST)
Attachments: Ghent PVRR 12-7-11.xlsx - 117 KB; Ghent Project 30 PVRR Table SV Option2.pdf - 85 KB; Ghent Project 30 PVRR Table SV Option1.pdf - 80 KB; Ghent Project 30 PVRR Table.pdf - 76 KB; Sterling Ventures Permit 11-19-2010.pdf - 84 KB; Form 7056.pdf - 1 MB;

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To: Schram, Chuck
Subject: Fwd: Ghent Landfill Beneficial Reuse Opportunity

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Subject: Ghent Landfill Beneficial Reuse Opportunity
To: jeff.heun@lge-ku.com
Cc: Scott Straight <scott.straight@lge-ku.com>, Caryl Pfeiffer <caryl.pfeiffer@lge-ku.com>, john.voyles@lge-ku.com, charles.schram@lge-ku.com, Jeff Joyce <jeff.joyce@lge-ku.com>

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DEP 7059F (1/06)

ENVIRONMENTAL AND PUBLIC PROTECTION CABINET

DEPARTMENT FOR ENVIRONMENTAL PROTECTION
DIVISION OF WASTE MANAGEMENT
14 REILLY ROAD
FRANKFORT, KY 40601
TELEPHONE NUMBER (502) 564-6716

REGISTERED PERMIT-BY-RULE
For BENEFICIAL REUSE OF SPECIAL WASTE
DEP 7059F (1/06)

GENERAL INSTRUCTIONS

1. APPLICABILITY - This registration form must be completed and submitted to the Cabinet by persons who propose to beneficially re-use special waste.

2. ASSISTANCE – Questions regarding this form may be directed in writing to the Division of Waste Management, Solid Waste Branch at the address listed above, or by calling (502) 564-6716.

3. SUBMISSION – Please type or print legibly in permanent ink. Submit the original and one (1) copy of the completed registration form to the Division of Waste Management at the address noted above. If an item is not applicable to your facility write "N/A" in the space provided.

4. LAWS AND REGULATIONS – Registrants are expected to understand and comply with all laws and regulations applicable to beneficial reuse of special waste.

DEP 7059F (1/06)

REGISTERED PERMIT-BY-RULE
BENEFICIAL REUSE OF SPECIAL WASTE

1. X New Registration - A registration number will be assigned by the Cabinet.
2. ___ This is a proposed modification of an existing registration.

Note: (If you checked item 2, complete one or both of the following two items.)
3. Agency Interest #: _____ 4. Registration #: ___-_____

Registrant Information

(The corporation, LLC, business, person, government agency, etc., that owns or operates the facility.)

5. Registrant Name: Sterling Ventures, LLC d/b/a Sterling Materials

6. Registrant Mailing Address: 376 South Broadway

7. City: Lexington 8. State: KY 9. Zip Code: 40508

10. Contact Person: Samuel A.B. Boone 11. Title: President

12. Phone #: (859) 259-9600 13. Cell #: (859) 621-4121

14. Fax #: (859) 259-9601 15. E-Mail Address: aboone@sterlingventures.com

Special Waste Facility Information

16. Facility Name: Sterling Mine 17. County: Gallatin

18. Facility Location: 100 Sierra Drive 19. E-Mail Address: _____
(For street or physical location only. Do not use P. O. Box #'s, etc.)

20. City: Verona 21. Zip Code: 41092

22. Facility Contact Person: Sam Van 23. Title: Mine Superintendent

24. Phone #: (859) 567-7300 Fax #: (859) 567-7313 Cell #: (859) 621-2142

Preparer Information

(Complete items 27 – 36 If the following information concerning the person preparing this registration is different from the contact persons named above.)

27. Preparers Name: John Walters 28. Company: Sterling Ventures, LLC

29. Mailing Address: 376 S. Broadway 30. E-mail Address: johnwalters@sterlingventures.com

31. City: Lexington 32. State: KY 33. Zip Code: 40508

34. Phone #: (859) 259-9600 35. Fax #: (859) 259-9601 36. Cell #: (859) 621-3990

DEP 7059F (1/06)

37. List the source (special waste generating facility) of the special waste to be beneficially reused. If there are multiple sources and more space is needed, use additional sheets and label as **Attachment 1.**

Special waste generator: KU Ghent Generation Station, Ghent, Carroll County, Kentucky

Special waste generator: _____

Special waste generator: _____

Special waste generator: _____

38. Provide, as **Attachment 2,** a description of the type and anticipated volume of special waste to be beneficially reused.

39. Provide as **Attachment 3,** a copy of the Toxicity Characteristic Leaching Procedure (TCLP) laboratory analysis for each type of special waste to be beneficially reused.

Note: You may omit the TCLP analysis or specific parameters of the analysis based upon your knowledge of the Special Waste, pursuant to 40 CFR 262.11. Should you elect to do this, a certified statement accepting responsibility will be required. Polychlorinated Biphenyls (PCBs) may also be omitted from the parameters listed in 401 KAR 45:100 Section 6(20)(b). Any certified statement for the omission of the TCLP or PCB data should be labeled as **Attachment 4.**

40. Provide, as **Attachment 5,** a description of how the special waste will be managed.

41. Provide, as **Attachment 6,** a description of how management and reuse of the special waste meets the environmental performance standards of 401 KAR 30:031.

42. **Attachment 7** is to be used to maintain a record of the special waste sources and amounts received. This form shall be utilized for quarterly reports submitted to the Cabinet.

DEP 7059F (1/06)

43. **Certification pursuant to 401 KAR 45:030 Section 10(4):**

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for such violations."

Signature of Registrant _____ Date _____

Name of Registrant (Typed or Printed) _____

Title _____

Subscribed and sworn to before me by _____

this the _____ day of _____, 20 _____.

Notary Public Signature _____

My Commission Expires _____

Attachment 2
Type and Volume of Special Waste

Sterling Ventures is proposing to use up to 800,000 tons per year of FGD Gypsum produced from the KU Ghent Power Station in Ghent Kentucky to fill mine voids in mined out sections of Sterling's underground limestone mine located at 100 Sierra Drive, Verona, Gallatin County, Kentucky. Gypsum is calcium sulfate dihydrate, or CaSO4•2H2O, which comes primarily from two sources: (i) Mined gypsum, a common mineral found around the world in sedimentary rock formations, from which it is mined or quarried, and (ii) FGD gypsum, which is produced as a byproduct from coal-fired electric utilities and is a synthetic material essentially identical in chemical structure to mined gypsum. The underground mine has the capacity to use 1,000,000 tons per year of gypsum for as long as the mine is operating at current limestone sales volumes.

FGD Gypsum

Scrubbers are attached to coal-fired power plants to limit emissions of the sulfur which is released when coal is burned. The scrubbers spray liquid lime or limestone slurry into the flue gas path, where it reacts with sulfur in the gas to form calcium sulfite, an intermediate product with little practical value. Calcium sulfite is commonly known as "scrubber sludge."

However, newer FGD scrubbing technologies can add an extra step to the scrubbing process known as "forced oxidation" which oxidizes the calcium sulfite and produces calcium sulfate dihydrate (CaSO4•2H2O), or FGD gypsum. The FGD gypsum is easily dewatered and can be marketable in the wallboard and agricultural industries.

The Ghent power plant has installed forced oxidation scrubbers on all four of its generating units with a projected FGD gypsum production of approximately 800,000 tons per year. The Ghent plant has a contract to provide the FGD Gypsum to the CertainTeed, Inc. wallboard plant located in East Carrolton, Kentucky. KU has projected CertainTeed's usage to be approximately 222,000 ton per year. Excess FGD Gypsum at Ghent is placed on the plant's Gypsum Stacking Pond. The Stacking Pond is currently listed as one of the 49 High Hazard impoundment facilities in the United States listed by the EPA in its *Coal Combustion Residues (CCR) - Surface Impoundments with High Hazard Potential Ratings* report. (See EPA530-F-09-006 June 2009 (updated August 2009)).

Because CertainTeed cannot utilize all of Ghent's FGD Gypsum, the opportunity to beneficially reuse this excess of FGD gypsum for filling Sterling's underground mine voids is an attractive alternative. In addition to providing a benefit to Sterling in filling underground voids to promote improved airflow in the mine, placing the Ghent's excess gypsum at Sterling is important to substantially reducing or eliminating the volume of excess gypsum in the gypsum stacking pond.

Attachment 3
Toxicity Characteristic Leaching Procedure Laboratory Analysis

See attached Exhibit 3-A

Exhibit 3A

Microbac Laboratories, Inc.

KENTUCKY TESTING LABORATORY DIVISION
3323 Gilmore Industrial Blvd. Louisville, KY 40213 502.962.6400 Fax: 502.962.6411
Evansville, IN 812.464.9000 | Lexington, KY 859.276.3506 | Paducah, KY 270.898.1637

Member ACIL

Chemical, Biological, Physical, Molecular, and Toxicological Services

ELECTRONIC CERTIFICATE OF ANALYSIS

1006-00672

L G & E (E ON US)
PAUL PUCKETT
EON-US / ANNUAL CCR EVALUATION

Date Reported 05/19/2010
Date Received 05/11/2010
Dates Sampled 05/04/2010-05/06/2010

Analysis	Out of Spec	Qualif	Result	Unit	Min	Max	Method	Cus Limit	PQL or Std Limit	Date	Time	Tech
Sample: 014 GHENT - UNIT 1 FLY ASH							Date & Time Sampled:			05/06/2010	@ 12:00	
....continued												
Sample: 015 GHENT - UNIT 2 FLY ASH							Date & Time Sampled:			05/06/2010	@ 12:00	
DATE EXTRACTED TCLP			COMPLETED	---			SW846 1311			05/13/10	16:00	RFV
[TCLP Metals]							SW846 6010C					
ARSENIC, TCLP			<0.20	MG/L		5.0	SW846 6010C		0.2	05/18/10	2:11	EHL
BARIUM, TCLP			0.48	MG/L		100.0	SW846 6010C		0.002	05/18/10	2:11	EHL
CADMIUM, TCLP			<0.10	MG/L		1.0	SW846 6010C		0.004	05/19/10	13:39	EHL
CHROMIUM, TCLP			<0.10	MG/L		5.0	SW846 6010C		0.01	05/19/10	13:39	EHL
LEAD, TCLP			<0.10	MG/L		5.0	SW846 6010C		0.02	05/19/10	13:39	EHL
MERCURY, TCLP			<0.10	MG/L		0.2	SW846 6010C		0.004	05/19/10	13:39	EHL
SELENIUM, TCLP			<0.20	MG/L		1.0	SW846 6010C		0.1	05/18/10	2:11	EHL
SILVER, TCLP			<0.10	MG/L		5.0	SW846 6010C		0.01	05/19/10	13:39	EHL
Sample: 016 GHENT - GYPSUM STACK							Date & Time Sampled:			05/06/2010	@ 12:00	
DATE EXTRACTED TCLP			COMPLETED	---			SW846 1311			05/13/10	16:00	RFV
[TCLP Metals]							SW846 6010C					
ARSENIC, TCLP			<0.20	MG/L		5.0	SW846 6010C		0.2	05/18/10	2:16	EHL
BARIUM, TCLP			<0.10	MG/L		100.0	SW846 6010C		0.002	05/18/10	2:16	EHL
CADMIUM, TCLP			<0.10	MG/L		1.0	SW846 6010C		0.004	05/19/10	13:43	EHL
CHROMIUM, TCLP			<0.10	MG/L		5.0	SW846 6010C		0.01	05/19/10	13:43	EHL
LEAD, TCLP			<0.10	MG/L		5.0	SW846 6010C		0.02	05/19/10	13:43	EHL
MERCURY, TCLP			<0.10	MG/L		0.2	SW846 6010C		0.004	05/19/10	13:43	EHL
SELENIUM, TCLP			<0.20	MG/L		1.0	SW846 6010C		0.1	05/18/10	2:16	EHL
SILVER, TCLP			<0.10	MG/L		5.0	SW846 6010C		0.01	05/19/10	13:43	EHL
Sample: 017 GHENT - GYPSUM							Date & Time Sampled:			05/06/2010	@ 12:00	
DATE EXTRACTED TCLP			COMPLETED	---			SW846 1311			05/13/10	16:00	RFV
[TCLP Metals]							SW846 6010C					
ARSENIC, TCLP			<0.20	MG/L		5.0	SW846 6010C		0.2	05/18/10	2:19	EHL
BARIUM, TCLP			<0.10	MG/L		100.0	SW846 6010C		0.002	05/18/10	2:19	EHL
CADMIUM, TCLP			<0.10	MG/L		1.0	SW846 6010C		0.004	05/19/10	13:46	EHL
CHROMIUM, TCLP			<0.10	MG/L		5.0	SW846 6010C		0.01	05/19/10	13:46	EHL
LEAD, TCLP			<0.10	MG/L		5.0	SW846 6010C		0.02	05/19/10	13:46	EHL
MERCURY, TCLP			<0.10	MG/L		0.2	SW846 6010C		0.004	05/19/10	13:46	EHL

Microbac®

Microbac Laboratories, Inc.

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Evansville, IN 812.464.9000 | Lexington, KY 859.276.3506 | Paducah, KY 270.898.3637

Member ACIL

Chemical, Biological, Physical, Molecular, and Toxicological Services

ELECTRONIC CERTIFICATE OF ANALYSIS

1005-00672

LG & E (E ON US)
PAUL PUCKETT
E ON-US / ANNUAL CCP EVALUATION

Date Reported 05/19/2010
Date Received 05/11/2010
Dates Sampled 05/04/2010-05/06/2010

Analysis	Out of Spec	Qualif	Result	Unit	Min	Max	Method	Qus Limit	PQL or SDL/Val	Date	Time	Tech
Sample: 017 GHENT - GYPSUM								Date & Time Sampled:		05/06/2010	@ 12:00	
.....continued												
SELENIUM, TCLP			<0.10	MG/L		1.0	SW846 6010C		0.1	05/18/10	2:29	PHL
SILVER, TCLP			<0.10	MG/L		5.0	SW846 6010C		0.01	05/18/10	13:45	PHL

THIS REPORT HAS BEEN REVIEWED AND APPROVED FOR RELEASE: _____
LABORATORY DIRECTOR, KENTUCKY DIVISION

As regulatory limits change frequently, Microbac advises the recipient of this report to confirm such limits with the appropriate Federal, state, or local authorities before acting in reliance on the regulatory limits provided.
For any feedback concerning our services, please contact Andrew Clifton, the Laboratory Director at 502.962.6400. You may also contact both James Nokes, President and Robert Morgan, Chief Operating Officer at president@microbac.com.

Attachment 5
Management of Special Waste

Gypsum will be excavated from the Ghent's Gypsum Stacking Pond by excavator and loaded in tarped, tri-axel dump trucks for transportation to Sterling's mine. Sterling Venture's Verona mine produces limestone from underground operations only. It does not mine any limestone from open pits. Sterling mines from three underground levels, located in solid limestone bedrock. From a geological standpoint, the sea level elevation of the roof of the uppermost level is approximately 136 feet above sea level. The roofs of the second and third levels are approximately 28 feet above, and 149 feet below sea level, respectively. From a reference point, the lowest most level of the Ohio River adjacent to the Sterling Mine is approximately 401 feet above sea level. (see Exhibit 6C)

Once at the mine, the gypsum will be dumped directly from the dump trucks, via shaft, to the first level (the "Tyrone" seam) of the underground mine. Once underground, the gypsum will be carried by loader or conveyor to the mined out areas then stacked, pushed and compacted to fill the mine voids.

Attachment 6

Management and Reuse in compliance with 401 KAR 30:031

The following is a summary of the how the management and reuse meets each of the Sections of 401 KAR 30:031.

Section 2. Floodplains.
All gypsum will be placed in Sterling's underground mine. Gypsum will not be placed or stored above ground and therefore will have no impact on, or restrict the flow of, the 100 year floodplain.

Section 3. Endangered Species.
All gypsum will be placed in Sterling's underground mine. Gypsum will not be placed or stored above ground and therefore will have no impact on, or result in the destruction of the habitat of any threatened or endangered species.

Section 4. Surface Waters.
All gypsum will be placed in Sterling's underground mine. Gypsum will not be placed or stored above ground and therefore will have no impact on, or cause a discharge into, any waters of the Commonwealth.

Section 5. Groundwater.
All gypsum will be placed in solid bedrock in an area below the bottom level of the uppermost aquifer. Gypsum will not be placed or stored above ground and therefore will have no impact on, or cause a discharge into, any waters of the Commonwealth.

The uppermost mining level of Sterling's underground mine is located in what is known as the Tyrone seam of limestone. The Tyrone Limestone in north central Kentucky contains at least five potassium bentonites. Bentonite is a soft, low-specific-gravity, expandable clay. It is altered volcanic ash and because of its peculiar property of expanding when wet, bentonite is effective as a water sealer, especially to prevent pond leakage, and is also used in rotary drilling muds to prevent contaminating formations with drilling fluid. Drillers have labeled the two most prominent Tyrone bentonite beds the Mud Cave and Pencil Cave. The bentonite acts as an acqutiard or confining layer that will prevent any contact of the gypsum with groundwater.

Attached as Exhibit 6-A is an excerpt from the U.S. Geological Survey - Hydrologic Atlas 730-K, Orville B. Lloyd, Jr., and William L. Lyke, 1995, describing the impact of the bentonite as a barrier to groundwater contact.

The roof of the uppermost mining level is over 200 feet below the bottom of any recorded well in the area. Regional wells do not extend below the bentonite levels in the Tyrone limestone. Attached as Exhibit 6-B is a listing of all recorded water wells in the area, their depth and distance between the bottom of the well and the roof of the Tyrone mining level.

Attached as Exhibit 6-C is a cross section of the Sterling's underground mine showing the Tyrone level mine in relation to the Mud Cave and Pencil Cave bentonite seams.

Section 6. Application to Land Use.
All gypsum will be placed underground. Gypsum will not be placed or stored above ground and therefore will have no impact on land use.

Section 7. Polychlorinated Biphenals.
FGD Gypsum does not contain PCBs.

Section 8. Disease.
All gypsum will be placed underground and therefore will be automatically covered. Gypsum is an inert naturally occurring mineral. Underground placement will eliminate any human health or environmental issues. No sewage sludge or septic tank materials are pumped or stored underground at Sterling's underground mine.

Section 9. Air.
Underground storage will not involve burning of gypsum, which is not a flammable material. Underground storage approximately 400 feet below the surface will prohibit the airborne release of gypsum.

Section 10. Safety.
Neither limestone mining nor gypsum produces any explosive gases or a fire hazard. Sterling's underground mine is gated, which prohibits any type of uncontrolled public access.

Section 11. Public Nuisance.
Underground storage will eliminate any public nuisance due to blowing litter, debris or other waste.

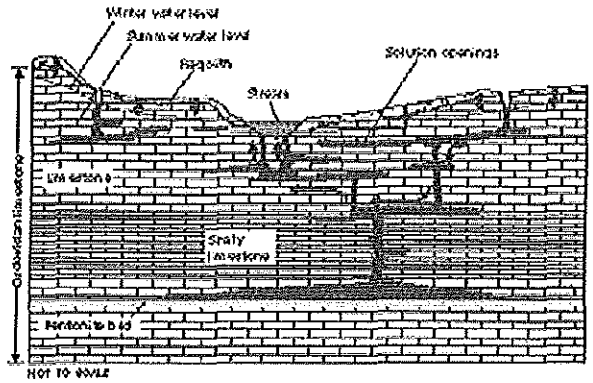
Section 12. Wetlands.
All gypsum will be placed underground. Gypsum will not be placed or stored above ground and therefore will have no impact on any wetlands

Section 13. Karst.
There are no sinkholes on or near the approximately 1,000 acres owned by Sterling. No surface water enters or exits the mine through any karst terrain or feature.

Section 14. Compliance.
Sterling will comply with all applicable requirements of KRS Chapter 224 and administrative regulation promulgated thereto.

Exhibit 6A

Confining units, such as beds of shaly limestone and bentonite, affect the depth to which freshwater circulates (fig. 97). Thin bentonite zones, which consist of clay particles that expand or swell when they become wet, form layers of low permeability that effectively impede the vertical movement of ground water. For example, in areas where the bentonite layers are continuous, the downward movement of ground water is restricted. This restriction isolates the ground water below the bentonite from the zone of dynamic circulation above the bentonite. U.S. Geological Survey - Hydrologic Atlas 730-K, Orville B. Lloyd, Jr., and William L. Lyke, 1995



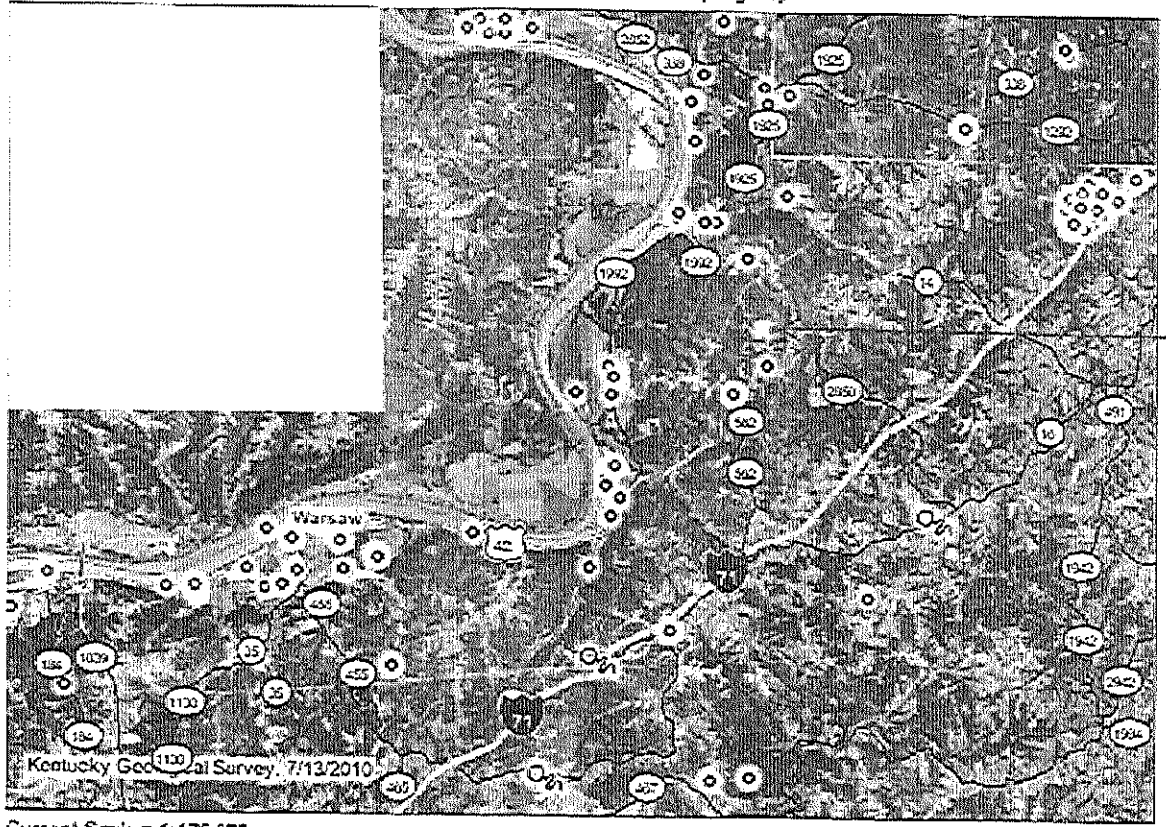
Modified from Zurawski, Ann, 1978, Summary appraisals of the Nation's ground-water resources—Tennessee region: U.S. Geological Survey Professional Paper 813-L, 35 p.

Figure 97. The limestone and dolomite aquifers contain small quantities of insoluble material and, therefore, produce only a thin layer of residuum when weathered. Recharge water percolates through the thin layer of surface material, called regolith, and subsequently moves through vertical fractures and horizontal bedding planes in the rocks. The slightly acidic water dissolves some of the limestone and dolomite as it moves to streams and other areas of discharge, such as springs and wells. The vertical movement of the recharge water and, therefore, the depth of development of solution openings, are restricted by zones of low permeability.

Kentucky Groundwater Data Repository
Kentucky Geological Survey
Water Well and Spring Location Map

Note: please disable popup blocking software for full functionality.
KGS Home > Maps, Pubs, & Data > Groundwater Info > Water Well and Spring Map

Search Criteria:
no search criteria



Sterling Mine

Current Scale = 1:175,972
Note: all wells and springs are displayed at scales below 1:100,000

Change Map Scale: choose a map scale

Change Basemap (background): color imagery (lfsa)

Change Map Size: half pg (6.8 x 4.7 in) | full pg (6.8 x 9.4 in)
TIP: to print map to scale, be sure to "File --> Print Preview..." and print at 100% scaling.

Overview Map:

Map Tools:

zoom in	zoom out	zoom full
zoom last	pan	get coords

Move Map:

Other Tools:

zoom to a location

KY-MAPS

Bookmark Map

EXHIBIT 6B

AKGWA NUMBER	lat27	lon27	Quadrangle	County	Construction Date	Primary Use	Surface Elevation	Total Depth	Bottom Elevation	Delta to Mine Roof	Owner	Owner Business	Regulatory Program
210	38.77528	-84.8131	Patriot	Gallatin	3/12/1987	DOMESTIC - SINGLE HOUSEHOLD	480	96	384	248	Wessells Constru		
950	38.81611	-84.8061	Patriot	Gallatin	6/22/1987	DOMESTIC - SINGLE HOUSEHOLD	510	99	411	275	Donlin		
2070	38.7525	-84.8722	Patriot	Gallatin	1/1/1900	DOMESTIC - SINGLE HOUSEHOLD	570				Hayton		
2070	38.7525	-84.8722	Patriot	Gallatin	1/1/1900	DOMESTIC - SINGLE HOUSEHOLD	570				Hayton		
2070	38.7525	-84.8722	Patriot	Gallatin	2/28/1986	DOMESTIC - SINGLE HOUSEHOLD	570	90	480	344	Hayton		
2070	38.7525	-84.8722	Patriot	Gallatin	2/28/1986	DOMESTIC - SINGLE HOUSEHOLD	570	90	480	344	Hayton		
2071	38.7975	-84.8078	Patriot	Gallatin	4/7/1986	DOMESTIC - SINGLE HOUSEHOLD	470	78	392	256	Wilker / McIntos		
2072	38.79167	-84.8039	Patriot	Gallatin	4/22/1986	DOMESTIC - SINGLE HOUSEHOLD	460	57	403	267	Perry		
3030	38.82306	-84.7594	Patriot	Gallatin	8/13/1985	DOMESTIC - SINGLE HOUSEHOLD	600	100	500	364	Whalen		
3885	38.82278	-84.8069	Patriot	Gallatin	7/30/1987	DOMESTIC - SINGLE HOUSEHOLD	524	142	382	246	Sproul		
6426	38.79722	-84.8072	Patriot	Gallatin	3/28/1988	DOMESTIC - SINGLE HOUSEHOLD	475	50	425	289	Hudepohl		
6427	38.775	-84.9003	Florence	Gallatin	8/31/1988	INDUSTRIAL - GENERAL	485	92	393	257		Irving Materials Inc	
6429	38.7875	-84.8064	Patriot	Gallatin	5/16/1989	DOMESTIC - SINGLE HOUSEHOLD	475	65	410	274	Heil		
7861	38.87556	-84.7808	Rising Sun	Boone	10/8/1990	DOMESTIC - SINGLE HOUSEHOLD	495	70	425	289	Ralston		
8554	38.79639	-84.8078	Patriot	Gallatin	10/29/1987	DOMESTIC - SINGLE HOUSEHOLD	470	93	377	241	Schwab		
10409	38.75417	-84.9117	Florence	Gallatin	1/22/1993	DOMESTIC - SINGLE HOUSEHOLD	550	83	467	331	Fender		
14147	38.88472	-84.7817	Rising Sun	Boone	12/13/1988	DOMESTIC - SINGLE HOUSEHOLD	530	86	444	308	Wood		
14148	38.88472	-84.7817	Rising Sun	Boone	12/14/1988	DOMESTIC - SINGLE HOUSEHOLD	430	93	337	201	Wood		
20278	38.78389	-84.8475	Patriot	Gallatin	8/18/1986	DOMESTIC - SINGLE HOUSEHOLD	470	80	390	254	Boschert		
20583	38.88778	-84.7597	Rising Sun	Boone	1/1/1900		550				Waljih		
21565	38.76806	-84.7294	Verona	Grant	10/3/1986	DOMESTIC - SINGLE HOUSEHOLD	710	80	630	494	Ellis		
21577	38.88389	-84.7586	Rising Sun	Boone	6/5/1994	DOMESTIC - SINGLE HOUSEHOLD	520	80	440	304	Wilbur		
27010	38.8575	-84.7864	Patriot	Boone	6/8/1992	DOMESTIC - SINGLE HOUSEHOLD	477	56	421	285	Fred		
29603	38.77078	-84.9396	Florence	Gallatin	1/1/1900	PUBLIC - TRANSIENT, NON-COMMUNITY	460				Loewendick	Rivers Edge Campground	
34428	38.87778	-84.6744	Union	Boone	7/20/1993		810	63	747	611	Vaske		
34436	38.84806	-84.765	Patriot	Boone	1/20/1987	DOMESTIC - SINGLE HOUSEHOLD	495	64	431	295	Gilliland		
34438	38.90361	-84.7714	Rising Sun	Boone	12/10/1986	DOMESTIC - SINGLE HOUSEHOLD	600	100	500	364	Kurkel		
34474	38.89556	-84.6681	Union	Boone	4/23/1993		810	83	727	591	Allen		
34475	38.89694	-84.6694	Union	Boone	12/4/1992	DOMESTIC - SINGLE HOUSEHOLD	820	103	717	581	McDaniel		
37305	38.78611	-84.8903	Florence	Gallatin	10/1/1994	HEAT PUMP - OPEN LOOP	495	94	401	265		Gallatin County Schools	
37311	38.76583	-84.9856	Florence	Gallatin	1/19/1995	INDUSTRIAL - GENERAL	470	91	379	243		Steel Technologies Inc	
37376	38.78222	-84.9017	Florence	Gallatin	1/1/1930	PUBLIC - COMMUNITY	491	136	355	219		Warsaw Water Works	Drinking Water
37377	38.78262	-84.9017	Florence	Gallatin	1/1/1930	PUBLIC - COMMUNITY	491	96	395	259		Warsaw Water Works	Drinking Water
37378	38.77417	-84.8856	Florence	Gallatin	1/1/1967	AGRICULTURE - LIVESTOCK WATERING	505	78	427	291	Smith		
37400	38.77861	-84.8778	Florence	Gallatin	4/27/1995		500				Oldendick	Sugar Bay Golf Inc	
39222	38.77889	-84.8764	Florence	Gallatin	1/1/1965		503				Oldendick	Sugar Bay Golf Inc	
48660	38.77528	-84.8867	Florence	Gallatin	1/1/1900	DOMESTIC - SINGLE HOUSEHOLD	510				Beall		
49372	38.78583	-84.8931	Florence	Gallatin	11/1/1999	HEAT PUMP - OPEN LOOP	495					Gallatin County Schools	
49377	38.77063	-84.9102	Florence	Gallatin	2/28/2000	PUBLIC - COMMUNITY	500					Gallatin County Water District	Drinking Water
51920	38.89969	-84.7986	Rising Sun	Boone	1/1/1974	PUBLIC - TRANSIENT, NON-COMMUNITY	470	9	461	325		Camp Turn About	
55811	38.85639	-84.7742	Patriot	Boone	4/19/2002	DOMESTIC - SINGLE HOUSEHOLD	490	70	420	284		Big Bone Marina	
58332	38.85639	-84.7775	Patriot	Boone	5/1/2002	DOMESTIC - SINGLE HOUSEHOLD	460	63	397	261		Big Bone Marina	
58338	38.89111	-84.7776	Rising Sun	Boone	1/23/2002	DOMESTIC - SINGLE HOUSEHOLD	605	80	525	389	Parker		
65141	38.82028	-84.8053	Patriot	Gallatin	1/1/1900	INDUSTRIAL - GENERAL	523					Nugent Sand Co - Warsaw Plant	
40004237	38.72534	-84.7774	Glencoe	Grant		DOMESTIC - SINGLE HOUSEHOLD							
40004241	38.78173	-84.8874	Florence	Gallatin		UNKNOWN	475						
40004243	38.79923	-84.8049	Patriot IN	Gallatin		DOMESTIC - SINGLE HOUSEHOLD		140					
40004245	38.81673	-84.8169	Patriot IN	Gallatin		DOMESTIC - SINGLE HOUSEHOLD		101					
40005375	38.77145	-84.9049	Florence	Gallatin		UNKNOWN	515						
40005376	38.77423	-84.9747	Florence	Gallatin		UNKNOWN	455						
40005378	38.78257	-84.9019	Florence	Gallatin		PUBLIC	490	140	350	214			
40005886	38.72618	-84.7655	Glencoe	Grant		UNKNOWN							

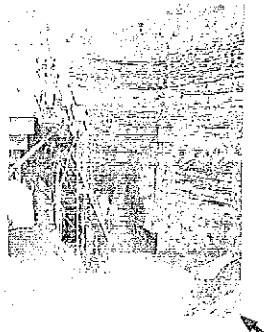
AKGWA NUMBER	lat27	lon27	Quadrangle	County	Construction Date	Primary Use	Surface Elevation	Total Depth	Bottom Elevation	Delta to Mine Roof	Owner	Owner Business	Regulatory Program
40005892	38.76951	-84.9305	Florence	Gallatin		DOMESTIC - SINGLE HOUSEHOLD		55					
40005893	38.76951	-84.9305	Florence	Gallatin		UNKNOWN	460						
40005894	38.77395	-84.9747	Florence	Gallatin		DOMESTIC - SINGLE HOUSEHOLD		58					
40005895	38.85867	-84.7858	Patriot IN	Boone		DOMESTIC - SINGLE HOUSEHOLD	490	29	461	325			
40006041	38.78173	-84.8874	Florence	Gallatin		DOMESTIC - SINGLE HOUSEHOLD		40					
40006325	38.77812	-84.8761	Florence	Gallatin		UNKNOWN	510		510	374			
40006326	38.78173	-84.8874	Florence	Gallatin		UNKNOWN	475		475	339			
40006327	38.79479	-84.8077	Patriot IN	Gallatin		DOMESTIC - SINGLE HOUSEHOLD		60					
40006328	38.79923	-84.8049	Patriot	Gallatin		UNKNOWN	490						
40006757	38.72534	-84.7774	Glencoe	Grant		UNKNOWN							
40006762	38.77145	-84.9049	Florence	Gallatin		DOMESTIC - SINGLE HOUSEHOLD		146					
40006763	38.77423	-84.9747	Florence	Gallatin		DOMESTIC - SINGLE HOUSEHOLD		87					
40006764	38.86256	-84.7527	Patriot IN	Boone		PUBLIC							
40007580	38.72618	-84.7655	Glencoe	Grant		DOMESTIC - SINGLE HOUSEHOLD							
40007585	38.74757	-84.9699	Sanders	Gallatin		DOMESTIC - SINGLE HOUSEHOLD							
40007586	38.77395	-84.9747	Florence	Gallatin		UNKNOWN	453						
40007588	38.77812	-84.8761	Florence	Gallatin		DOMESTIC - SINGLE HOUSEHOLD		80					
80003234	38.8625	-84.6614	Verona	Boone	7/22/1993	ITORING WELL - WATER LEVEL MONITORING	800	18	782	646		Bavarian Trucking Co Inc	Solid Waste
80003235	38.86139	-84.6572	Verona	Boone	7/14/1993	ITORING WELL - WATER LEVEL MONITORING	800	20.7	779.3	643.3		Bavarian Trucking Co Inc	Solid Waste
80003236	38.86083	-84.6592	Verona	Boone	7/10/1993	ITORING WELL - WATER LEVEL MONITORING	780	17.5	762.5	626.5		Bavarian Trucking Co Inc	Solid Waste
80003239	38.85917	-84.6619	Verona	Boone	7/27/1993	MONITORING WELL - AMBIENT MONITORING	740	18.2	721.8	585.8		Bavarian Trucking Co Inc	Solid Waste
80003240	38.85944	-84.6628	Verona	Boone	7/10/1993	MONITORING WELL - AMBIENT MONITORING	720	27	693	557		Bavarian Trucking Co Inc	Solid Waste
80003241	38.85972	-84.6639	Verona	Boone	7/10/1993	MONITORING WELL - AMBIENT MONITORING	720	22.9	697.1	561.1		Bavarian Trucking Co Inc	Solid Waste
80003242	38.85917	-84.665	Verona	Boone	7/21/1993	MONITORING WELL - AMBIENT MONITORING	720	18.4	701.6	565.6		Bavarian Trucking Co Inc	Solid Waste
80003243	38.85972	-84.6667	Verona	Boone	7/21/1993	MONITORING WELL - AMBIENT MONITORING	700	18.1	681.9	545.9		Bavarian Trucking Co Inc	Solid Waste
80003244	38.85944	-84.6678	Verona	Boone	7/20/1993	MONITORING WELL - AMBIENT MONITORING	720	18.9	701.1	565.1		Bavarian Trucking Co Inc	Solid Waste
80003245	38.85556	-84.6678	Verona	Boone	12/30/2000	MONITORING WELL - AMBIENT MONITORING	800	18.1	781.9	645.9		Bavarian Trucking Co Inc	Solid Waste
80003245	38.85556	-84.6678	Verona	Boone	12/30/2000	MONITORING WELL - AMBIENT MONITORING	800	18.1	781.9	645.9		Bavarian Trucking Co Inc	Solid Waste
80003245	38.85556	-84.6678	Verona	Boone	7/14/1993	MONITORING WELL - AMBIENT MONITORING	800	18.1	781.9	645.9		Bavarian Trucking Co Inc	Solid Waste
80003245	38.85556	-84.6678	Verona	Boone	7/14/1993	MONITORING WELL - AMBIENT MONITORING	800	18.1	781.9	645.9		Bavarian Trucking Co Inc	Solid Waste
80003245	38.85556	-84.6678	Verona	Boone	12/30/2000	MONITORING WELL - AMBIENT MONITORING	800	18.1	781.9	645.9		Bavarian Trucking Co Inc	Solid Waste
80003245	38.85556	-84.6678	Verona	Boone	12/30/2000	MONITORING WELL - AMBIENT MONITORING	800	18.1	781.9	645.9		Bavarian Trucking Co Inc	Solid Waste
80003245	38.85556	-84.6678	Verona	Boone	7/14/1993	MONITORING WELL - AMBIENT MONITORING	800	18.1	781.9	645.9		Bavarian Trucking Co Inc	Solid Waste
80003245	38.85556	-84.6678	Verona	Boone	7/14/1993	MONITORING WELL - AMBIENT MONITORING	800	18.1	781.9	645.9		Bavarian Trucking Co Inc	Solid Waste
80003246	38.86	-84.6642	Verona	Boone	7/27/1993	MONITORING WELL - AMBIENT MONITORING	720	18.3	701.7	565.7		Bavarian Trucking Co Inc	Solid Waste
80011401	38.86139	-84.6542	Verona	Boone	1/1/1900	MONITORING WELL - AMBIENT MONITORING	847.49					Bavarian Trucking Co Inc	Solid Waste
80011402	38.86167	-84.6539	Verona	Boone	1/1/1900	MONITORING WELL - AMBIENT MONITORING	847.92					Bavarian Trucking Co Inc	Solid Waste
80011403	38.85778	-84.6592	Verona	Boone	1/1/1900	MONITORING WELL - AMBIENT MONITORING	833.59					Bavarian Trucking Co Inc	Solid Waste
80011404	38.85806	-84.6589	Verona	Boone	1/1/1900	MONITORING WELL - AMBIENT MONITORING	833.65					Bavarian Trucking Co Inc	Solid Waste
80011405	38.85583	-84.6619	Verona	Boone	1/1/1900	MONITORING WELL - AMBIENT MONITORING	834.72					Bavarian Trucking Co Inc	Solid Waste
80011406	38.855	-84.6639	Verona	Boone	1/1/1900	MONITORING WELL - AMBIENT MONITORING	816.7					Bavarian Trucking Co Inc	Solid Waste
80011407	38.85611	-84.6672	Verona	Boone	1/1/1900	MONITORING WELL - AMBIENT MONITORING	800.5					Bavarian Trucking Co Inc	Solid Waste
80011408	38.85861	-84.67	Verona	Boone	1/1/1900	MONITORING WELL - AMBIENT MONITORING	766.27					Bavarian Trucking Co Inc	Solid Waste
80011409	38.86	-84.6692	Verona	Boone	1/1/1900	MONITORING WELL - AMBIENT MONITORING	767.85					Bavarian Trucking Co Inc	Solid Waste
80011410	38.86222	-84.6689	Verona	Boone	1/1/1900	MONITORING WELL - AMBIENT MONITORING	641.24					Bavarian Trucking Co Inc	Solid Waste
80011411	38.86222	-84.6669	Verona	Boone	1/1/1900	MONITORING WELL - AMBIENT MONITORING	643.85					Bavarian Trucking Co Inc	Solid Waste
80011412	38.86222	-84.6681	Verona	Boone	1/1/1900	MONITORING WELL - AMBIENT MONITORING	604.9					Bavarian Trucking Co Inc	Solid Waste
80011413	38.8625	-84.6622	Verona	Boone	1/1/1900	MONITORING WELL - AMBIENT MONITORING	828.1					Bavarian Trucking Co Inc	Solid Waste
80011414	38.8625	-84.6622	Verona	Boone	1/1/1900	MONITORING WELL - AMBIENT MONITORING	828.01					Bavarian Trucking Co Inc	Solid Waste
80011415	38.86417	-84.6594	Verona	Boone	1/1/1900	MONITORING WELL - AMBIENT MONITORING	780.48					Bavarian Trucking Co Inc	Solid Waste
80011416	38.86417	-84.6589	Verona	Boone	1/1/1900	MONITORING WELL - AMBIENT MONITORING	780.26					Bavarian Trucking Co Inc	Solid Waste
80011417	38.86556	-84.6625	Verona	Boone	1/1/1900	MONITORING WELL - AMBIENT MONITORING	784.79					Bavarian Trucking Co Inc	Solid Waste

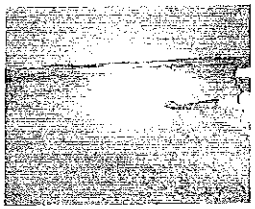
AKGWA NUMBER	lat27	lon27	Quadrangle	County	Construction Date	Primary Use	Surface Elevation	Total Depth	Bottom Elevation	Delta to Mine Roof	Owner	Owner Business	Regulatory Program
80011418	38.86361	-84.6642	Verona	Boone	1/1/1900	MONITORING WELL - AMBIENT MONITORING	762.46					Bavarian Trucking Co Inc	Solid Waste
80011419	38.86361	-84.6583	Verona	Boone	1/1/1900	MONITORING WELL - AMBIENT MONITORING	784.17					Bavarian Trucking Co Inc	Solid Waste
80012127	38.90417	-84.8358	Rising Sun	Boone	11/10/1980	MONITORING WELL - AMBIENT MONITORING	530	86	444	308		Cincinnati Gas & Electric	Solid Waste
80012127	38.90417	-84.8358	Rising Sun	Boone	11/10/1980	MONITORING WELL - AMBIENT MONITORING	530	86	444	308		Duke Energy Kentucky Inc	Solid Waste
80012133	38.90083	-84.8483	Rising Sun	Boone	11/26/1980	MONITORING WELL - AMBIENT MONITORING	475	57	418	282		Cincinnati Gas & Electric	Solid Waste
80012133	38.90083	-84.8483	Rising Sun	Boone	11/26/1980	MONITORING WELL - AMBIENT MONITORING	475	57	418	282		Duke Energy Kentucky Inc	Solid Waste
80012134	38.90083	-84.8411	Rising Sun	Boone	11/13/1980	MONITORING WELL - AMBIENT MONITORING	475	108	367	231		Cincinnati Gas & Electric	Solid Waste
80012134	38.90083	-84.8411	Rising Sun	Boone	11/13/1980	MONITORING WELL - AMBIENT MONITORING	475	108	367	231		Duke Energy Kentucky Inc	Solid Waste
80012135	38.90111	-84.8361	Rising Sun	Boone	3/28/1991	MONITORING WELL - AMBIENT MONITORING	475	33	442	306		Cincinnati Gas & Electric	Solid Waste
80012135	38.90111	-84.8361	Rising Sun	Boone	3/28/1991	MONITORING WELL - AMBIENT MONITORING	475	33	442	306		Duke Energy Kentucky Inc	Solid Waste
80012488	38.81611	-84.7694	Patriot	Gallatin	4/20/1994	MONITORING WELL - AMBIENT MONITORING	680	18	662	526		Old Starlite Tavern	UST
80012489	38.81611	-84.7694	Patriot	Gallatin	4/20/1994	MONITORING WELL - AMBIENT MONITORING	680	15	665	529		Old Starlite Tavern	UST
80012490	38.81611	-84.7694	Patriot	Gallatin	4/20/1994	MONITORING WELL - AMBIENT MONITORING	680	8.5	671.5	535.5		Old Starlite Tavern	UST
80026034	38.85972	-84.6603	Verona	Boone	5/8/1995	MONITORING WELL - AMBIENT MONITORING	759.34	16	743.34	607.34		Bavarian Trucking Co Inc	Solid Waste
80026035	38.86	-84.665	Verona	Boone	5/10/1995	MONITORING WELL - AMBIENT MONITORING	723.22	16.3	706.92	570.92		Bavarian Trucking Co Inc	Solid Waste
80026544	38.90278	-84.8417	Rising Sun	Boone	11/1/1993	MONITORING WELL - AMBIENT MONITORING	540	80	460	324		Cincinnati Gas & Electric	Solid Waste
80026544	38.90278	-84.8417	Rising Sun	Boone	11/1/1993	MONITORING WELL - AMBIENT MONITORING	540	80	460	324		Duke Energy Kentucky Inc	Solid Waste
80026545	38.90056	-84.8419	Rising Sun	Boone	10/13/1995	MONITORING WELL - AMBIENT MONITORING	475	41	434	298		Cincinnati Gas & Electric	Solid Waste
80026545	38.90056	-84.8419	Rising Sun	Boone	10/13/1995	MONITORING WELL - AMBIENT MONITORING	475	41	434	298		Duke Energy Kentucky Inc	Solid Waste
80026547	38.90417	-84.8444	Rising Sun	Boone	10/17/1995	MONITORING WELL - AMBIENT MONITORING	520	80.5	439.5	303.5		Cincinnati Gas & Electric	Solid Waste
80026547	38.90417	-84.8444	Rising Sun	Boone	10/17/1995	MONITORING WELL - AMBIENT MONITORING	520	80.5	439.5	303.5		Duke Energy Kentucky Inc	Solid Waste
80026549	38.90194	-84.8292	Rising Sun	Boone	10/18/1995	MONITORING WELL - AMBIENT MONITORING	470	30.5	439.5	303.5		Cincinnati Gas & Electric	Solid Waste
80026549	38.90194	-84.8292	Rising Sun	Boone	10/18/1995	MONITORING WELL - AMBIENT MONITORING	470	30.5	439.5	303.5		Duke Energy Kentucky Inc	Solid Waste
80029573	38.90121	-84.8476	Rising Sun	Boone	11/30/2005	MONITORING WELL - AMBIENT MONITORING		120				Cincinnati Gas & Electric	Solid Waste
80029573	38.90121	-84.8476	Rising Sun	Boone	11/30/2005	MONITORING WELL - AMBIENT MONITORING		120				Duke Energy Kentucky Inc	Solid Waste
80029577	38.902	-84.8484	Rising Sun	Boone	12/2/2005	MONITORING WELL - AMBIENT MONITORING		120				Cincinnati Gas & Electric	Solid Waste
80029577	38.902	-84.8484	Rising Sun	Boone	12/2/2005	MONITORING WELL - AMBIENT MONITORING		120				Duke Energy Kentucky Inc	Solid Waste
80029864	38.74278	-84.8358	Glencoe	Gallatin	5/29/1996	MONITORING WELL - AMBIENT MONITORING	680	7.5	672.5	536.5		Glencoe Carry-out	UST
80029865	38.74278	-84.8358	Glencoe	Gallatin	5/29/1996	MONITORING WELL - AMBIENT MONITORING	680	12	668	532		Glencoe Carry-out	UST
80029872	38.74278	-84.8358	Glencoe	Gallatin	6/7/1996	MONITORING WELL - AMBIENT MONITORING	680	15	665	529		Glencoe Carry-out	UST
80029873	38.74278	-84.8358	Glencoe	Gallatin	6/7/1996	MONITORING WELL - AMBIENT MONITORING	680	13	667	531		Glencoe Carry-out	UST
80029874	38.74278	-84.8358	Glencoe	Gallatin	6/7/1996	MONITORING WELL - AMBIENT MONITORING	680	23	657	521		Glencoe Carry-out	UST
80029875	38.74278	-84.8358	Glencoe	Gallatin	6/7/1996	MONITORING WELL - AMBIENT MONITORING	680	30	650	514		Glencoe Carry-out	UST
80030354	38.74278	-84.8358	Glencoe	Gallatin	6/19/1996	MONITORING WELL - AMBIENT MONITORING	680	30	650	514		Glencoe Carry-out	UST
80030355	38.74278	-84.8358	Glencoe	Gallatin	6/19/1996	MONITORING WELL - AMBIENT MONITORING	680	18	662	526		Glencoe Carry-out	UST
80030356	38.74278	-84.8358	Glencoe	Gallatin	6/20/1996	MONITORING WELL - AMBIENT MONITORING	680	43	637	501		Glencoe Carry-out	UST
80030955	38.74222	-84.8347	Glencoe	Gallatin	9/4/1996	MONITORING WELL - AMBIENT MONITORING	690	25	665	529		Glencoe Carry-out	UST
80030956	38.74222	-84.8347	Glencoe	Gallatin	9/4/1996	MONITORING WELL - AMBIENT MONITORING	690	25	665	529		Glencoe Carry-out	UST
80032432	38.86667	-84.6483	Verona	Boone	7/12/1999	MONITORING WELL - AMBIENT MONITORING	840	23.7	816.3	680.3		Bavarian Trucking Co Inc	Solid Waste
80032433	38.86667	-84.6483	Verona	Boone	7/12/1999	MONITORING WELL - AMBIENT MONITORING	831	30.5	800.5	664.5		Bavarian Trucking Co Inc	Solid Waste
80035870	38.74194	-84.8347	Glencoe	Gallatin	11/9/1998	MONITORING WELL - AMBIENT MONITORING	700	30.5	669.5	533.5		Glencoe Carry-out	UST
80035879	38.74222	-84.8347	Glencoe	Gallatin	11/9/1998	MONITORING WELL - AMBIENT MONITORING	690	6	684	548		Glencoe Carry-out	UST
80035880	38.74222	-84.8347	Glencoe	Gallatin	11/9/1998	MONITORING WELL - AMBIENT MONITORING	690	7	683	547		Glencoe Carry-out	UST
80037728	38.88611	-84.7522	Rising Sun	Boone	7/16/2004	MONITORING WELL - AMBIENT MONITORING	460					Kentucky State Parks	
80038750	38.74278	-84.8358	Glencoe	Gallatin	1/12/2000	MONITORING WELL - AMBIENT MONITORING	680	20.2	659.8	523.8		Glencoe Carry-out	UST
80039695	38.77111	-84.9311	Florence	Gallatin	5/24/2000	MONITORING WELL - AMBIENT MONITORING	460	15.5	444.5	308.5		Dans Marina	UST
80039696	38.77111	-84.9311	Florence	Gallatin	5/24/2000	MONITORING WELL - AMBIENT MONITORING	460	15.5	444.5	308.5		Dans Marina	UST
80039697	38.77111	-84.9311	Florence	Gallatin	5/24/2000	MONITORING WELL - AMBIENT MONITORING	460	15.5	444.5	308.5		Dans Marina	UST
80040053	38.77556	-84.9156	Florence	Gallatin	9/29/2000	MONITORING WELL - AMBIENT MONITORING	490	139	351	215		Warsaw Water Works	
80040054	38.78444	-84.9092	Florence	Gallatin	9/29/2000	MONITORING WELL - AMBIENT MONITORING	480	117	363	227		Warsaw Water Works	
80043988	38.74278	-84.8358	Glencoe	Carroll	10/29/2001	MONITORING WELL - AMBIENT MONITORING	680	25	655	519		Glencoe Carry-out	UST
80044011	38.87861	-84.6994	Union	Boone	12/4/2001	MONITORING WELL - AMBIENT MONITORING	740	6.5	733.5	597.5		Matracia & Matracia Partnershi	UST

AKGWA NUMBER	lat27	lon27	Quadrangle	County	Construction Date	Primary Use	Surface Elevation	Total Depth	Bottom Elevation	Delta to Mine Roof	Owner	Owner Business	Regulatory Program
80044012	38.87861	-84.6994	Union	Boone	12/4/2001	MONITORING WELL - AMBIENT MONITORING	740	10.2	729.8	593.8		Matracia & Matracia Partnershi	UST
80044013	38.87861	-84.6994	Union	Boone	12/4/2001	MONITORING WELL - AMBIENT MONITORING	740	9.3	730.7	594.7		Matracia & Matracia Partnershi	UST
80044014	38.87861	-84.6994	Union	Boone	12/4/2001	MONITORING WELL - AMBIENT MONITORING	740	9	731	595		Matracia & Matracia Partnershi	UST
80049181	38.76056	-84.7889	Patriot	Gallatin	5/4/2004	MONITORING WELL - AMBIENT MONITORING	850					Napoleon Grocery	UST
80049182	38.76056	-84.7889	Patriot	Gallatin	5/3/2004	MONITORING WELL - AMBIENT MONITORING	850					Napoleon Grocery	UST
80049185	38.76056	-84.7889	Patriot	Gallatin	5/3/2004	MONITORING WELL - AMBIENT MONITORING	850					Napoleon Grocery	UST
80049186	38.76056	-84.7889	Patriot	Gallatin	5/4/2004	MONITORING WELL - AMBIENT MONITORING	850					Napoleon Grocery	UST
80049425	38.87861	-84.6994	Union	Boone	1/5/2004	MONITORING WELL - AMBIENT MONITORING	740	6	734	598		Matracia & Matracia Partnershi	UST
80049426	38.87861	-84.6994	Union	Boone	1/5/2004	MONITORING WELL - AMBIENT MONITORING	740	8	732	596		Matracia & Matracia Partnershi	UST
80049427	38.87861	-84.6994	Union	Boone	1/5/2004	MONITORING WELL - AMBIENT MONITORING	740	8.5	731.5	595.5		Matracia & Matracia Partnershi	UST
80049428	38.87861	-84.6994	Union	Boone	1/5/2004	MONITORING WELL - AMBIENT MONITORING	740	6.5	733.5	597.5		Matracia & Matracia Partnershi	UST
80049429	38.87861	-84.6994	Union	Boone	1/5/2004	MONITORING WELL - AMBIENT MONITORING	740	4	736	600		Matracia & Matracia Partnershi	UST
80050961	38.85639	-84.6669	Verona	Boone	11/9/2005	MONITORING WELL - AMBIENT MONITORING	800					Bavarian Trucking Co Inc	Solid Waste
80053954	38.90083	-84.8369	Rising Sun	Boone	9/20/2007	MONITORING WELL - AMBIENT MONITORING		45				Duke Energy Kentucky Inc	Solid Waste
80053955	38.90389	-84.8369	Rising Sun	Boone	9/18/2007	MONITORING WELL - AMBIENT MONITORING		117.5				Duke Energy Kentucky Inc	Solid Waste

Exhibit 6C

Sterling Materials – Verona, KY
Underground Cross Section





Pencil Cave Bentonite Seam
Thickness: ≈ 18"
Elevation: +266'

Mud Cave Bentonite Seam
Thickness: ≈ 24"
Elevation: +247'

Surface Varies from 500' to 800'

+500' (Top of Slope Elevation)

+393' (Mine Entrance Elevation)

Gypsum – Delivery Shaft

+266' – Pencil Cave Bentonite Seam Elevation

+247' – Mud Cave Bentonite Seam Elevation

+136' (Avg Level 1 Ceiling Elevation)

1st Level

+86' (Avg Level 1 Floor Elevation)

+28' (Avg Level 2 Ceiling Elevation)

2nd Level

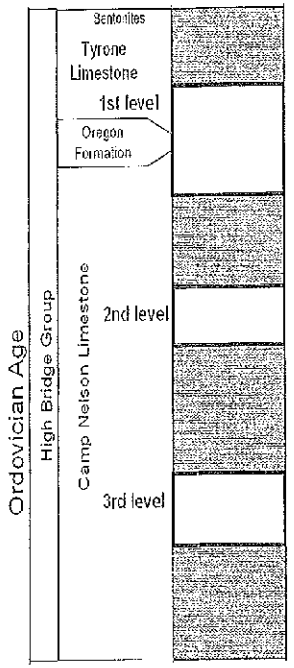
+2' (Avg Level 1 Floor Elevation)

-149' (Avg Level 3 Ceiling Elevation)

3rd Level

-182' (Avg Level 1 Floor Elevation)

Interior Mine Photo: Typical Storage Area



Notes:
- Drawing Not to Scale.
- Mine ceiling and floor elevations are based on average elevations across each level.
- Bentonite Seam and Rock Stratigraphy Information Resource: Kentucky Geological Survey, University of Kentucky, Lexington Series X, 1974. High Carbonate Rock in the High Bridge Group (Middle Ordovician), Boone County, Kentucky. Author: Garland R. Dever, Jr.
- Elevations are referenced at Sea Level.

DEP 7059F (1/06)

Attachment 7
Special Waste Sources and Amounts Log Sheet

1. Registrant Name: _____ 2. County: _____

3. Agency Interest #: _____ 4. Registration #: ____-_____

5. Contact Person: _____ 6. Title: _____

7. Phone #: (___)___-____ 8. Fax #: (___)___-____ 9. Cell #: (___)___-____

Report prepared for the months of: _____, _____ and _____ Year: ____

Name of Special Waste Generator (Source of Special Waste)	Amount Received (Dry Tons)

10. **"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for such violations."**

Authorized Signature _____ Date _____

Name: (Typed or Printed) _____ Title: _____

Annual Revenue Requirements - Ghent Landfill - KU Project 30 with Beneficial Reuse -Sterling Ventures Mine

	Capital					O&M				Total
	Phase 1	Phase 2	Phase 3	Final Cap	Total	Non-Power	Power	Beneficial Reuse	Total O&M	
12/31/2009	480,509	-	-		480,509		84,800	-	84,800	565,309
12/31/2010	3,553,056	-	-		3,553,056		127,832	-	127,832	3,680,888
12/31/2011	7,177,211	-	-		7,177,211		198,348	-	198,348	7,375,559
12/31/2012	13,654,069	-	-		13,654,069		294,577	-	294,577	13,948,646
12/31/2013	14,678,389	-	-		14,678,389		24,380,117	(489,556)	23,890,561	38,568,950
12/31/2014	15,152,993	-	-		15,152,993		26,056,704	(495,467)	25,561,237	40,714,230
12/31/2015	14,539,006	-	-		14,539,006		27,290,868	(436,289)	26,854,579	41,393,584
12/31/2016	13,883,815	-	-		13,883,815		28,578,421	(387,511)	28,190,911	42,074,725
12/31/2017	13,255,915	-	-		13,255,915		29,956,559	(348,918)	29,607,640	42,863,556
12/31/2018	12,653,016	-	-		12,653,016		31,612,174	(501,636)	31,110,538	43,763,554
12/31/2019	12,016,402	-	-		12,016,402		33,594,783	(873,325)	32,721,458	44,737,860
12/31/2020	11,379,788	-	-		11,379,788		35,566,861	(1,101,031)	34,465,830	45,845,618
12/31/2021	10,743,173	-	-		10,743,173		38,056,766	(1,114,736)	36,942,030	47,685,203
12/31/2022	10,106,559	-	-		10,106,559		39,920,041	(1,025,754)	38,894,287	49,000,846
12/31/2023	9,469,945	-	-		9,469,945		41,890,306	(931,433)	40,958,872	50,428,818
12/31/2024	8,833,331	-	-		8,833,331		44,529,811	(1,382,478)	43,147,333	51,980,664
12/31/2025	8,196,717	-	-		8,196,717		47,885,193	(2,392,499)	45,492,694	53,689,411
12/31/2026	7,560,103	52,720	-		7,612,823		51,399,644	(3,382,211)	48,017,432	55,630,256
12/31/2027	6,923,489	156,032	-		7,079,520		54,431,913	(3,728,255)	50,703,658	57,783,179
12/31/2028	6,286,875	993,170	-		7,280,044		55,178,509	(3,378,832)	51,799,676	59,079,720
12/31/2029	5,650,260	2,639,761	-		8,290,021		57,858,589	(2,798,637)	55,059,952	63,349,973
12/31/2030	5,013,646	3,691,001	-		8,704,647		60,699,474	(2,349,913)	58,349,561	67,054,208
12/31/2031	4,377,032	3,904,584	-		8,281,616		63,710,812	(2,101,930)	61,608,882	69,890,498
12/31/2032	3,740,418	3,734,217	-		7,474,635		66,902,830	(1,942,577)	64,960,253	72,434,888
12/31/2033	3,103,804	3,563,850	-		6,667,654		70,286,369	(1,773,662)	68,512,707	75,180,361
12/31/2034	2,467,190	3,393,483	-		5,860,673		73,872,921	(1,594,613)	72,278,307	78,138,980
12/31/2035	1,830,576	3,223,116	-		5,053,692		77,674,665	(1,404,821)	76,269,844	81,323,536
12/31/2036	1,193,961	3,052,749	-		4,246,711		81,704,515	(1,203,641)	80,500,873	84,747,584
12/31/2037	557,347	2,882,383	-		3,439,730		85,976,155	(990,391)	84,985,764	88,425,494
2009 PVRR	111,212,472	5,355,077	-		116,567,550		354,316,774	(10,448,976)	343,867,798	460,435,348
Cubic Yards	17,350,000	7,807,500			25,157,500		25,157,500		25,157,500	25,157,500
									$/CY (PVRR)	$ 18.30

CASE	Option 30	Option 30 with Benefical Reuse
PVRR		
Capital	$ 192,717,582	$ 116,567,550
O&M	354,316,774	343,867,798
Total	$ 547,034,356	$ 460,435,348
Delta to Least Cost	**$ 86,599,008**	Least Cost
Unit Cost (2009 PVRR $/CY)	$ 21.74	$ 18.30

NOTE-This Table Requires $9.00 Price Inserted into cell D16 of PVRR Analysis

Annual Revenue Requirements - Ghent Landfill - KU Project 30 with Beneficial Reuse -Sterling Ventures Mine With Scrubber Stone Backhaul

	Capital					O&M				Total
	Phase 1	Phase 2	Phase 3	Final Cap	Total	Non-Power	Power	Beneficial Reuse	Total O&M	
12/31/2009	480,509	-	-		480,509		84,800	-	84,800	565,309
12/31/2010	3,553,056	-	-		3,553,056		127,832	-	127,832	3,680,888
12/31/2011	7,177,211	-	-		7,177,211		198,348	-	198,348	7,375,559
12/31/2012	13,654,069	-	-		13,654,069		294,577	-	294,577	13,948,646
12/31/2013	14,678,389	-	-		14,678,389		24,380,117	(1,989,556)	22,390,561	37,068,950
12/31/2014	15,152,993	-	-		15,152,993		26,056,704	(2,085,467)	23,971,237	39,124,230
12/31/2015	14,539,006	-	-		14,539,006		27,290,868	(2,121,689)	25,169,179	39,708,184
12/31/2016	13,883,815	-	-		13,883,815		28,578,421	(2,174,035)	26,404,387	40,288,201
12/31/2017	13,255,915	-	-		13,255,915		29,956,559	(2,242,634)	27,713,925	40,969,840
12/31/2018	12,653,016	-	-		12,653,016		31,612,174	(2,508,974)	29,103,199	41,756,215
12/31/2019	12,016,402	-	-		12,016,402		33,594,783	(3,001,104)	30,593,680	42,610,081
12/31/2020	11,379,788	-	-		11,379,788		35,566,861	(3,356,477)	32,210,385	43,590,172
12/31/2021	10,743,173	-	-		10,743,173		38,056,766	(3,505,508)	34,551,257	45,294,431
12/31/2022	10,106,559	-	-		10,106,559		39,920,041	(3,559,973)	36,360,069	46,466,628
12/31/2023	9,469,945	-	-		9,469,945		41,890,306	(3,617,705)	38,272,601	47,742,546
12/31/2024	8,833,331	-	-		8,833,331		44,529,811	(4,229,926)	40,299,885	49,133,216
12/31/2025	8,196,717	-	-		8,196,717		47,885,193	(5,410,794)	42,474,399	50,671,116
12/31/2026	7,560,103	52,720	-		7,612,823		51,399,644	(6,581,604)	44,818,040	52,430,863
12/31/2027	6,923,489	156,032	-		7,079,520		54,431,913	(7,119,611)	47,312,302	54,391,823
12/31/2028	6,286,875	993,170	-		7,280,044		55,178,509	(6,973,670)	48,204,839	55,484,883
12/31/2029	5,650,260	2,639,761	-		8,290,021		57,858,589	(6,609,164)	51,249,425	59,539,446
12/31/2030	5,013,646	3,691,001	-		8,704,647		60,699,474	(6,389,072)	54,310,402	63,015,049
12/31/2031	4,377,032	3,904,584	-		8,281,616		63,710,812	(6,383,438)	57,327,373	65,608,989
12/31/2032	3,740,418	3,734,217	-		7,474,635		66,902,830	(6,480,976)	60,421,854	67,896,489
12/31/2033	3,103,804	3,563,850	-		6,667,654		70,286,369	(6,584,365)	63,702,004	70,369,657
12/31/2034	2,467,190	3,393,483	-		5,860,673		73,872,921	(6,693,958)	67,178,962	73,039,635
12/31/2035	1,830,576	3,223,116	-		5,053,692		77,674,665	(6,810,127)	70,864,538	75,918,230
12/31/2036	1,193,961	3,052,749	-		4,246,711		81,704,515	(6,933,266)	74,771,249	79,017,960
12/31/2037	557,347	2,882,383	-		3,439,730		85,976,155	(7,063,793)	78,912,362	82,352,092
2009 PVRR	111,212,472	5,355,077	-		116,567,550		354,316,774	(33,255,638)	321,061,136	437,628,685
Cubic Yards	17,350,000	7,807,500			25,157,500		25,157,500		25,157,500	25,157,500
									$/CY (PVRR)	$ 17.40

CASE	Option 30	Option 30 with Benefical Reuse
PVRR		
Capital	$ 192,717,582	$ 116,567,550
O&M	354,316,774	321,061,136
Total	$ 547,034,356	$ 437,628,685
Delta to Least Cost	**$ 109,405,671**	Least Cost
Unit Cost (2009 PVRR $/CY)	$ 21.74	$ 17.40

	Annual Revenue Requirements - Ghent Landfill - KU Project 30									
	Capital					O&M				Total
	Phase 1	Phase 2	Phase 3	Final Cap	Total	Non-Power	Power	Beneficial Reuse	Total O&M	
12/31/2009	480,509	-	-		480,509		84,800		84,800	565,309
12/31/2010	5,098,729	-	-		5,098,729		127,832		127,832	5,226,561
12/31/2011	11,571,793	-	-		11,571,793		198,348		198,348	11,770,141
12/31/2012	19,480,236	-	-		19,480,236		294,577		294,577	19,774,813
12/31/2013	20,326,462	-	-		20,326,462		24,380,117		24,380,117	44,706,579
12/31/2014	20,544,834	-	-		20,544,834		26,056,704		26,056,704	46,601,539
12/31/2015	19,687,280	-	-		19,687,280		27,290,868		27,290,868	46,978,148
12/31/2016	18,799,210	52,684	-		18,851,894		28,578,421		28,578,421	47,430,316
12/31/2017	17,948,314	155,939	-		18,104,253		29,956,559		29,956,559	48,060,812
12/31/2018	17,131,380	993,170	-		18,124,550		31,612,174		31,612,174	49,736,723
12/31/2019	16,268,561	2,639,761	-		18,908,322		33,594,783		33,594,783	52,503,105
12/31/2020	15,405,743	3,691,001	-		19,096,743		35,566,861		35,566,861	54,663,605
12/31/2021	14,542,924	3,904,584	-		18,447,508		38,056,766		38,056,766	56,504,274
12/31/2022	13,680,105	3,734,217	-		17,414,322		39,920,041		39,920,041	57,334,363
12/31/2023	12,817,286	3,563,850	-		16,381,136		41,890,306		41,890,306	58,271,442
12/31/2024	11,954,467	3,393,483	2,082,456		17,430,407		44,529,811		44,529,811	61,960,218
12/31/2025	11,091,649	3,223,116	6,215,971		20,530,736		47,885,193		47,885,193	68,415,929
12/31/2026	10,228,830	3,052,749	10,179,118		23,460,698		51,399,644		51,399,644	74,860,342
12/31/2027	9,366,011	2,882,383	11,617,513		23,865,907		54,431,913		54,431,913	78,297,820
12/31/2028	8,503,192	2,712,016	11,117,397		22,332,605		55,178,509		55,178,509	77,511,114
12/31/2029	7,640,374	2,541,649	10,617,281		20,799,303		57,858,589		57,858,589	78,657,892
12/31/2030	6,777,555	2,371,282	10,117,164		19,266,001		60,699,474		60,699,474	79,965,474
12/31/2031	5,914,736	2,200,915	9,617,048		17,732,699		63,710,812		63,710,812	81,443,510
12/31/2032	5,051,917	2,030,548	9,116,931		16,199,397		66,902,830		66,902,830	83,102,226
12/31/2033	4,189,098	1,860,181	8,616,815		14,666,095		70,286,369		70,286,369	84,952,464
12/31/2034	3,326,280	1,689,814	8,116,699		13,132,793		73,872,921		73,872,921	87,005,713
12/31/2035	2,463,461	1,519,447	7,616,582		11,599,490		77,674,665		77,674,665	89,274,156
12/31/2036	1,600,642	1,349,080	7,116,466		10,066,188		81,704,515		81,704,515	91,770,703
12/31/2037	737,823	1,178,714	6,616,349		8,532,886		85,976,155		85,976,155	94,509,041
2009 PVRR	153,383,226	14,945,173	24,389,184		192,717,582		354,316,774		354,316,774	547,034,356
Cubic Yards	9,542,500	6,072,500	9,542,500		25,157,500		25,157,500		25,157,500	25,157,500
									$/CY (PVRR)	$ 21.74

	A	B	C	D	E	F	G	H	I
1	Revenue Requirments Summary								
2	Gypsum Disposal at Sterling Materials					2009	2010	2011	2012
3									
4	Revenue Requirement								
5	Eligible Plant					$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356
6	Less Gypsum Plant Requirements/Phase Delays					$ -	$ (14,090,000)	$ (40,060,000)	$ (53,110,000)
7	Revised Eligible Plant					$ 4,321,671	$ 32,388,846	$ 65,425,803	$ 124,467,356
8	Less Accumulated Depreciation								
9	Less Deferred Tax Balance								
10	Environmental Compliance Rate Base					$ 4,321,671	$ 32,388,846	$ 65,425,803	$ 124,467,356
11	Rate of Return					11.1%	10.97%	10.97%	10.97%
12		Assumed	Tons (1.155)	1,000,000		$ 480,509	$ 3,553,056	$ 7,177,211	$ 13,654,069
13		86.7500%	Cubic yards	867,500					
14	Operating Expenses					$ 84,800	$ 121,349	$ 128,630	$ 136,348
15	less Gypsum to On-site Landfill								
16	Gypsum to Sterling			**$ 10.50**					
17	Net Operating					$ 84,800	$ 121,349	$ 128,630	$ 136,348
18	Annual Depreciation								
19	Annual Property Tax Expense						$ 6,483	$ 69,718	$ 158,229
20	Total OE					$ 84,800	$ 127,832	$ 198,348	$ 294,577
21									
22	Total E(m) Gypsum to Sterling				**$ 460,435,348**	$ 565,309	$ 3,680,888	$ 7,375,559	$ 13,948,646
23	Total E(m) - Project 30 (See below)				**$ 547,034,356**	$ 565,309	$ 5,226,561	$ 11,770,141	$ 19,774,813
24									
25	**Difference**		**PVRR**	**7.81%**	**$ (86,599,008)**	$ -	$ (1,545,673)	$ (4,394,582)	$ (5,826,167)
26	Date					12/31/2009	12/31/2010	12/31/2011	12/31/2012
27									
28	Revenue Requirments Summary								
29	2009 Amended Plan								
30	Project 30		Ghent Landfill Phase I						
31	See Exhibit B					2009	2010	2011	2012
32									
33	Revenue Requirement								
34	Eligible Plant					$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356
35	Less Gypsum Plant Requirements/Phase Delays					$ -	$ -	$ -	$ -
36	Revised Eligible Plant					$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356
37	Less Accumulated Depreciation								
38	Less Deferred Tax Balance								
39	Environmental Compliance Rate Base					$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356
40	Rate of Return					11.1%	10.97%	10.97%	10.97%
41						$ 480,509	$ 5,098,729	$ 11,571,793	$ 19,480,236
42									
43	Operating Expenses					$ 84,800	$ 121,349	$ 128,630	$ 136,348
44	less Gypsum to On-site Landfill								
45	Gypsum to Sterling								
46	Net Operating					$ 84,800	$ 121,349	$ 128,630	$ 136,348
47	Annual Depreciation								
48	Annual Property Tax Expense						$ 6,483	$ 69,718	$ 158,229

	J	K	L	M	N	O	P	Q	R	S	T	U	V
1													
2	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
3													
4													
5	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 203,078,976	$ 204,078,976	$ 212,078,976	$ 228,078,976	$ 239,078,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 262,328,976	$ 302,328,976
6	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,610,000)	$ (54,610,000)	$ (62,610,000)	$ (78,610,000)	$ (89,610,000)	$ (93,110,000)	$ (93,110,000)	$ (93,110,000)	$ (112,860,000)	$ (152,860,000)
7	$ 138,023,918	$ 148,831,953	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976
8	$ (3,690,414)	$ (7,842,826)	$ (12,013,010)	$ (16,183,194)	$ (20,353,378)	$ (24,523,563)	$ (28,693,747)	$ (32,863,931)	$ (37,034,115)	$ (41,204,299)	$ (45,374,483)	$ (49,544,667)	$ (53,714,851)
9	$ (528,683)	$ (2,857,926)	$ (4,921,730)	$ (6,724,117)	$ (8,277,719)	$ (9,603,427)	$ (11,236,471)	$ (12,869,515)	$ (14,502,559)	$ (16,135,603)	$ (17,768,648)	$ (19,401,692)	$ (21,034,736)
10	$ 133,804,821	$ 138,131,202	$ 132,534,236	$ 126,561,665	$ 120,837,879	$ 115,341,986	$ 109,538,758	$ 103,735,530	$ 97,932,302	$ 92,129,073	$ 86,325,845	$ 80,522,617	$ 74,719,389
11	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
12	$ 14,678,389	$ 15,152,993	$ 14,539,006	$ 13,883,815	$ 13,255,915	$ 12,653,016	$ 12,016,402	$ 11,379,788	$ 10,743,173	$ 10,106,559	$ 9,469,945	$ 8,833,331	$ 8,196,717
13								$ 27,051	$ 661,940				
14	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,556	**$ 28,601,000**	**$ 30,979,000**	$ 32,837,740	$ 34,808,004	$ 36,896,485	$ 39,110,274
15	$ (9,569,527)	$ (10,143,699)	$ (10,752,321)	$ (11,397,460)	$ (12,081,307)	$ (12,806,186)	$ (13,574,557)	$ (14,389,030)	$ (15,252,372)	$ (16,167,515)	$ (17,137,565)	$ (18,165,819)	$ (19,255,768)
16	$ 10,500,000	$ 11,130,000	$ 11,797,800	$ 12,505,668	$ 13,256,008	$ 14,051,369	$ 14,894,451	$ 15,788,118	$ 16,735,405	$ 17,739,529	$ 18,803,901	$ 19,932,135	$ 21,128,063
17	$ 19,933,781	$ 21,129,808	$ 22,397,596	$ 23,741,452	$ 25,165,940	$ 26,675,896	$ 28,276,450	$ 30,000,087	$ 32,462,033	$ 34,409,755	$ 36,474,340	$ 38,662,800	$ 40,982,568
18	$ 3,690,414	$ 4,152,411	$ 4,170,184	$ 4,170,185	$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,170,184
19	$ 266,366	$ 279,017	$ 286,798	$ 279,274	$ 271,517	$ 264,458	$ 274,825	$ 295,558	$ 309,813	$ 314,348	$ 314,348	$ 314,348	$ 339,942
20	$ 23,890,561	$ 25,561,237	$ 26,854,579	$ 28,190,911	$ 29,607,640	$ 31,110,538	$ 32,721,458	$ 34,465,830	$ 36,942,030	$ 38,894,287	$ 40,958,872	$ 43,147,333	$ 45,492,694
21													
22	$ 38,568,950	$ 40,714,230	$ 41,393,584	$ 42,074,725	$ 42,863,556	$ 43,763,554	$ 44,737,860	$ 45,845,618	$ 47,685,203	$ 49,000,846	$ 50,428,818	$ 51,980,664	$ 53,689,411
23	$ 44,706,579	$ 46,601,539	$ 46,978,148	$ 47,430,316	$ 48,060,812	$ 49,736,723	$ 52,503,105	$ 54,663,605	$ 56,504,274	$ 57,334,363	$ 58,271,442	$ 61,960,218	$ 68,415,929
24													
25	$ (6,137,629)	$ (5,887,309)	$ (5,584,564)	$ (5,355,590)	$ (5,197,256)	$ (5,973,170)	$ (7,765,245)	$ (8,817,987)	$ (8,819,070)	$ (8,333,517)	$ (7,842,625)	$ (9,979,554)	$ (14,726,518)
26	12/31/2013	12/31/2014	12/31/2015	12/31/2016	12/31/2017	12/31/2018	12/31/2019	12/31/2020	12/31/2021	12/31/2022	12/31/2023	12/31/2024	12/31/2025
27													
28													
29													
30													
31	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
32				**Start Phase II**								**Start Phase III**	
33				$ 500,000	$ 1,000,000	$ 8,000,000	$ 16,000,000	$ 11,000,000	$ 3,500,000			$ 19,750,000	$ 40,000,000
34	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 203,078,976	$ 204,078,976	$ 212,078,976	$ 228,078,976	$ 239,078,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 262,328,976	$ 302,328,976
35	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
36	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 203,078,976	$ 204,078,976	$ 212,078,976	$ 228,078,976	$ 239,078,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 262,328,976	$ 302,328,976
37	$ (5,110,443)	$ (10,744,623)	$ (16,396,576)	$ (22,062,480)	$ (27,756,283)	$ (33,673,286)	$ (40,036,689)	$ (46,706,992)	$ (53,474,945)	$ (60,242,897)	$ (67,010,850)	$ (74,329,828)	$ (82,764,806)
38	$ (732,114)	$ (3,915,341)	$ (6,717,677)	$ (9,166,960)	$ (11,288,480)	$ (13,186,459)	$ (15,678,367)	$ (18,290,458)	$ (20,940,788)	$ (23,591,119)	$ (26,241,449)	$ (29,107,561)	$ (32,410,698)
39	$ 185,291,361	$ 187,281,989	$ 179,464,723	$ 171,849,536	$ 165,034,213	$ 165,219,232	$ 172,363,920	$ 174,081,526	$ 168,163,243	$ 158,744,960	$ 149,326,677	$ 158,891,587	$ 187,153,472
40	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
41	$ 20,326,462	$ 20,544,834	$ 19,687,280	$ 18,851,894	$ 18,104,253	$ 18,124,550	$ 18,908,322	$ 19,096,743	$ 18,447,508	$ 17,414,322	$ 16,381,136	$ 17,430,407	$ 20,530,736
42								$ 27,051	$ 661,940				
43	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,556	**$ 28,601,000**	**$ 30,979,000**	$ 32,837,740	$ 34,808,004	$ 36,896,485	$ 39,110,274
44	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
45	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
46	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,556	$ 28,601,000	$ 30,979,000	$ 32,837,740	$ 34,808,004	$ 36,896,485	$ 39,110,274
47	$ 5,110,443	$ 5,634,180	$ 5,651,953	$ 5,665,904	$ 5,693,803	$ 5,917,003	$ 6,363,403	$ 6,670,303	$ 6,767,953	$ 6,767,953	$ 6,767,953	$ 7,318,978	$ 8,434,978
48	$ 266,366	$ 279,017	$ 286,798	$ 279,274	$ 271,517	$ 264,458	$ 274,825	$ 295,558	$ 309,813	$ 314,348	$ 314,348	$ 314,348	$ 339,942

	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH
1												
2	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037
3	**Start Phase II**											
4	$ 500,000	$ 1,000,000	$ 8,000,000	$ 16,000,000	$ 11,000,000	$ 3,500,000						
5	$ 342,328,976	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
6	$ (192,360,000)	$ (209,031,024)	$ (201,031,024)	$ (185,031,024)	$ (174,031,024)	$ (170,531,024)	$ (170,531,024)	$ (170,531,024)	$ (170,531,024)	$ (170,531,024)	$ (170,531,024)	$ (170,531,024)
7	$ 149,968,976	$ 150,968,976	$ 158,968,976	$ 174,968,976	$ 185,968,976	$ 189,468,976	$ 189,468,976	$ 189,468,976	$ 189,468,976	$ 189,468,976	$ 189,468,976	$ 189,468,976
8	$ (57,898,986)	$ (62,111,020)	$ (66,546,254)	$ (71,427,888)	$ (76,616,422)	$ (81,902,606)	$ (87,188,790)	$ (92,474,974)	$ (97,761,158)	$ (103,047,342)	$ (108,333,526)	$ (113,619,710)
9	$ (22,673,243)	$ (24,322,675)	$ (26,059,513)	$ (27,971,161)	$ (30,002,991)	$ (32,073,060)	$ (34,143,130)	$ (36,213,200)	$ (38,283,269)	$ (40,353,339)	$ (42,423,409)	$ (44,493,479)
10	$ 69,396,748	$ 64,535,281	$ 66,363,209	$ 75,569,927	$ 79,349,563	$ 75,493,310	$ 68,137,056	$ 60,780,802	$ 53,424,548	$ 46,068,295	$ 38,712,041	$ 31,355,787
11	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
12	$ 7,612,823	$ 7,079,520	$ 7,280,044	$ 8,290,021	$ 8,704,647	$ 8,281,616	$ 7,474,635	$ 6,667,654	$ 5,860,673	$ 5,053,692	$ 4,246,711	$ 3,439,730
13			$ (1,912,962)									
14	$ 41,456,890	$ 43,944,304	**$ 44,668,000**	$ 47,348,080	$ 50,188,965	$ 53,200,303	$ 56,392,321	$ 59,775,860	$ 63,362,412	$ 67,164,156	$ 71,194,006	$ 75,465,646
15	$ (20,411,115)	$ (21,635,781)	$ (22,933,928)	$ (24,309,964)	$ (25,768,562)	$ (27,314,676)	$ (28,953,556)	$ (30,690,769)	$ (32,532,216)	$ (34,484,149)	$ (36,553,198)	$ (38,746,389)
16	$ 22,395,747	$ 23,739,492	$ 25,163,861	$ 26,673,693	$ 28,274,114	$ 29,970,561	$ 31,768,795	$ 33,674,922	$ 35,695,418	$ 37,837,143	$ 40,107,371	$ 42,513,814
17	$ 43,441,522	$ 46,048,014	$ 46,897,933	$ 49,711,809	$ 52,694,517	$ 55,856,188	$ 59,207,559	$ 62,760,013	$ 66,525,614	$ 70,517,151	$ 74,748,180	$ 79,233,071
18	$ 4,184,134	$ 4,212,034	$ 4,435,234	$ 4,881,634	$ 5,188,534	$ 5,286,184	$ 5,286,184	$ 5,286,184	$ 5,286,184	$ 5,286,184	$ 5,286,184	$ 5,286,184
19	$ 391,776	$ 443,610	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510
20	$ 48,017,432	$ 50,703,658	$ 51,799,676	$ 55,059,952	$ 58,349,561	$ 61,608,882	$ 64,960,253	$ 68,512,707	$ 72,278,307	$ 76,269,844	$ 80,500,873	$ 84,985,764
21												
22	$ 55,630,256	$ 57,783,179	$ 59,079,720	$ 63,349,973	$ 67,054,208	$ 69,890,498	$ 72,434,888	$ 75,180,361	$ 78,138,980	$ 81,323,536	$ 84,747,584	$ 88,425,494
23	$ 74,860,342	$ 78,297,820	$ 77,511,114	$ 78,657,892	$ 79,965,474	$ 81,443,510	$ 83,102,226	$ 84,952,464	$ 87,005,713	$ 89,274,156	$ 91,770,703	$ 94,509,041
24												
25	$ (19,230,086)	$ (20,514,642)	$ (18,431,393)	$ (15,307,918)	$ (12,911,267)	$ (11,553,012)	$ (10,667,338)	$ (9,772,103)	$ (8,866,733)	$ (7,950,620)	$ (7,023,119)	$ (6,083,547)
26	12/31/2026	12/31/2027	12/31/2028	12/31/2029	12/31/2030	12/31/2031	12/31/2032	12/31/2033	12/31/2034	12/31/2035	12/31/2036	12/31/2037
27												
28												
29												
30												
31	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037
32												
33	$ 40,000,000	$ 17,671,024										
34	$ 342,328,976	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
35	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
36	$ 342,328,976	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
37	$ (92,315,784)	$ (102,359,783)	$ (112,403,782)	$ (122,447,782)	$ (132,491,781)	$ (142,535,780)	$ (152,579,779)	$ (162,623,779)	$ (172,667,778)	$ (182,711,777)	$ (192,755,777)	$ (202,799,776)
38	$ (36,150,861)	$ (40,084,091)	$ (44,017,321)	$ (47,950,551)	$ (51,883,781)	$ (55,817,012)	$ (59,750,242)	$ (63,683,472)	$ (67,616,702)	$ (71,549,932)	$ (75,483,162)	$ (79,416,392)
39	$ 213,862,331	$ 217,556,126	$ 203,578,896	$ 189,601,667	$ 175,624,438	$ 161,647,208	$ 147,669,979	$ 133,692,750	$ 119,715,520	$ 105,738,291	$ 91,761,061	$ 77,783,832
40	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
41	$ 23,460,698	$ 23,865,907	$ 22,332,605	$ 20,799,303	$ 19,266,001	$ 17,732,699	$ 16,199,397	$ 14,666,095	$ 13,132,793	$ 11,599,490	$ 10,066,188	$ 8,532,886
42			$ (1,912,962)									
43	$ 41,456,890	$ 43,944,304	**$ 44,668,000**	$ 47,348,080	$ 50,188,965	$ 53,200,303	$ 56,392,321	$ 59,775,860	$ 63,362,412	$ 67,164,156	$ 71,194,006	$ 75,465,646
44	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
45	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
46	$ 41,456,890	$ 43,944,304	$ 44,668,000	$ 47,348,080	$ 50,188,965	$ 53,200,303	$ 56,392,321	$ 59,775,860	$ 63,362,412	$ 67,164,156	$ 71,194,006	$ 75,465,646
47	$ 9,550,978	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999
48	$ 391,776	$ 443,610	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510

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12	$ 259,765,660
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22	$ 1,471,356,097
23	$ 1,731,854,332
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25	**$ (260,498,235)**
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27	$ (260,498,235)
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33	$ 117,421,024
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41	$ 482,133,777
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	A	B	C	D	E	F	G	H	I
49	Total OE					$ 84,800	$ 127,832	$ 198,348	$ 294,577
50									
51	Total E(m) Gypsum to On-site Landfill as Calculated				**547,034,356**	$ 565,309	$ 5,226,561	$ 11,770,141	$ 19,774,813
52	Total E(m) Gypsum to On-site Landfill per KU					$ 565,309	$ 5,226,225	$ 11,769,378	$ 19,773,528
53									
54	Calculation Check Difference					$ -	$ 336	$ 763	$ 1,285
55									
56									
57	Site E/F	Hauling cost of Ash 2.25 mile round trip							
58		Haul Road Maintenance							
59	Total								
60	Reduce by 50% for Site M					$ -	$ -	$ -	$ -
61	**Difference**		**PVRR**	**7.81%**	**$ (21,865,903)**				

	J	K	L	M	N	O	P	Q	R	S	T	U	V
49	$ 24,380,117	$ 26,056,704	$ 27,290,868	$ 28,578,421	$ 29,956,559	$ 31,612,174	$ 33,594,783	$ 35,566,861	$ 38,056,766	$ 39,920,041	$ 41,890,306	$ 44,529,811	$ 47,885,193
50													
51	$ 44,706,579	$ 46,601,539	$ 46,978,148	$ 47,430,316	$ 48,060,812	$ 49,736,723	$ 52,503,105	$ 54,663,605	$ 56,504,274	$ 57,334,363	$ 58,271,442	$ 61,960,218	$ 68,415,929
52	$ 44,705,239	$ 46,600,208	$ 46,976,843	$ 47,458,553	$ 48,044,547	$ 48,653,648							
53													
54	$ 1,340	$ 1,331	$ 1,305	$ (28,237)	$ 16,265	$ 1,083,075							
55													
56													
57	$ 2,822,723	$ 2,992,086	$ 3,171,612	$ 3,361,908	$ 3,563,623	$ 3,777,440	$ 4,004,087	$ 4,244,332	$ 4,498,992	$ 4,768,931	$ 5,055,067	$ 5,358,371	$ 5,679,873
58	$ 53,529	$ 56,741	$ 60,145	$ 63,754	$ 67,579	$ 71,634	$ 75,932	$ 80,488	$ 85,317	$ 90,436	$ 95,862	$ 101,614	$ 107,711
59	$ 2,876,252	$ 3,048,827	$ 3,231,757	$ 3,425,662	$ 3,631,202	$ 3,849,074	$ 4,080,018	$ 4,324,820	$ 4,584,309	$ 4,859,367	$ 5,150,929	$ 5,459,985	$ 5,787,584
60	$ 1,438,126	$ 1,524,414	$ 1,615,878	$ 1,712,831	$ 1,815,601	$ 1,924,537	$ 2,040,009	$ 2,162,410	$ 2,292,154	$ 2,429,684	$ 2,575,465	$ 2,729,993	$ 2,893,792
61													

	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH
49	$ 51,399,644	$ 54,431,913	$ 55,178,509	$ 57,858,589	$ 60,699,474	$ 63,710,812	$ 66,902,830	$ 70,286,369	$ 73,872,921	$ 77,674,665	$ 81,704,515	$ 85,976,155
50												
51	$ 74,860,342	$ 78,297,820	$ 77,511,114	$ 78,657,892	$ 79,965,474	$ 81,443,510	$ 83,102,226	$ 84,952,464	$ 87,005,713	$ 89,274,156	$ 91,770,703	$ 94,509,041
52												
53												
54												
55												
56												
57	$ 6,020,666	$ 6,381,906	$ 6,764,820	$ 7,170,709	$ 7,600,952	$ 8,057,009	$ 8,540,429	$ 9,052,855	$ 9,596,026	$ 10,171,788	$ 10,782,095	$ 11,429,021
58	$ 114,174	$ 121,024	$ 128,285	$ 135,982	$ 144,141	$ 152,790	$ 161,957	$ 171,675	$ 181,975	$ 192,894	$ 204,467	$ 216,735
59	$ 6,134,839	$ 6,502,930	$ 6,893,105	$ 7,306,692	$ 7,745,093	$ 8,209,799	$ 8,702,387	$ 9,224,530	$ 9,778,002	$ 10,364,682	$ 10,986,563	$ 11,645,756
60	$ 3,067,420	$ 3,251,465	$ 3,446,553	$ 3,653,346	$ 3,872,547	$ 4,104,899	$ 4,351,193	$ 4,612,265	$ 4,889,001	$ 5,182,341	$ 5,493,281	$ 5,822,878
61												

	AI
49	$ 1,249,720,555
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51	$ 1,731,854,332
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Cell: D16
Comment: John Walters:
Insert $9.00 for Limestone Backhaul calculation

	A	B	C	D	E	F	G	H	I
1		**Annual Revenue Requirements - Ghent Landfill - KU Project 30**							
2									
3		Capital					O&M		
4									
5									Beneficial
6		Phase 1	Phase 2	Phase 3	Final Cap	Total	Non-Power	Power	Reuse
7	12/31/2009	480,509	-	-		480,509		84,800	
8	12/31/2010	5,098,729	-	-		5,098,729		127,832	
9	12/31/2011	11,571,793	-	-		11,571,793		198,348	
10	12/31/2012	19,480,236	-	-		19,480,236		294,577	
11	12/31/2013	20,326,462	-	-		20,326,462		24,380,117	
12	12/31/2014	20,544,834	-	-		20,544,834		26,056,704	
13	12/31/2015	19,687,280	-	-		19,687,280		27,290,868	
14	12/31/2016	18,799,210	52,684	-		18,851,894		28,578,421	
15	12/31/2017	17,948,314	155,939	-		18,104,253		29,956,559	
16	12/31/2018	17,131,380	993,170	-		18,124,550		31,612,174	
17	12/31/2019	16,268,561	2,639,761	-		18,908,322		33,594,783	
18	12/31/2020	15,405,743	3,691,001	-		19,096,743		35,566,861	
19	12/31/2021	14,542,924	3,904,584	-		18,447,508		38,056,766	
20	12/31/2022	13,680,105	3,734,217	-		17,414,322		39,920,041	
21	12/31/2023	12,817,286	3,563,850	-		16,381,136		41,890,306	
22	12/31/2024	11,954,467	3,393,483	2,082,456		17,430,407		44,529,811	
23	12/31/2025	11,091,649	3,223,116	6,215,971		20,530,736		47,885,193	
24	12/31/2026	10,228,830	3,052,749	10,179,118		23,460,698		51,399,644	
25	12/31/2027	9,366,011	2,882,383	11,617,513		23,865,907		54,431,913	
26	12/31/2028	8,503,192	2,712,016	11,117,397		22,332,605		55,178,509	
27	12/31/2029	7,640,374	2,541,649	10,617,281		20,799,303		57,858,589	
28	12/31/2030	6,777,555	2,371,282	10,117,164		19,266,001		60,699,474	
29	12/31/2031	5,914,736	2,200,915	9,617,048		17,732,699		63,710,812	
30	12/31/2032	5,051,917	2,030,548	9,116,931		16,199,397		66,902,830	
31	12/31/2033	4,189,098	1,860,181	8,616,815		14,666,095		70,286,369	
32	12/31/2034	3,326,280	1,689,814	8,116,699		13,132,793		73,872,921	
33	12/31/2035	2,463,461	1,519,447	7,616,582		11,599,490		77,674,665	

	J	K
1		
2		
3		Total
4		
5	Total	
6	O&M	
7	84,800	565,309
8	127,832	5,226,561
9	198,348	11,770,141
10	294,577	19,774,813
11	24,380,117	44,706,579
12	26,056,704	46,601,539
13	27,290,868	46,978,148
14	28,578,421	47,430,316
15	29,956,559	48,060,812
16	31,612,174	49,736,723
17	33,594,783	52,503,105
18	35,566,861	54,663,605
19	38,056,766	56,504,274
20	39,920,041	57,334,363
21	41,890,306	58,271,442
22	44,529,811	61,960,218
23	47,885,193	68,415,929
24	51,399,644	74,860,342
25	54,431,913	78,297,820
26	55,178,509	77,511,114
27	57,858,589	78,657,892
28	60,699,474	79,965,474
29	63,710,812	81,443,510
30	66,902,830	83,102,226
31	70,286,369	84,952,464
32	73,872,921	87,005,713
33	77,674,665	89,274,156

	A	B	C	D	E	F	G	H	I
34	12/31/2036	1,600,642	1,349,080	7,116,466		10,066,188		81,704,515	
35	12/31/2037	737,823	1,178,714	6,616,349		8,532,886		85,976,155	
36	2009 PVRR	153,383,226	14,945,173	24,389,184		192,717,582		354,316,774	
37									
38	Cubic Yards	9,542,500	6,072,500	9,542,500		25,157,500		25,157,500	
39									

	J	K
34	81,704,515	91,770,703
35	85,976,155	94,509,041
36	354,316,774	547,034,356
37		
38	25,157,500	25,157,500
39	$/CY (PVRR)	$ 21.74

	A	B	C	D	E	F	G	H
1		**Annual Revenue Requirements - Ghent Landfill - KU Project 30 with Beneficial Reuse -S**						
2								
3		Capital						O
4								
5								
6		Phase 1	Phase 2	Phase 3	Final Cap	Total	Non-Power	Power
7	12/31/2009	480,509	-	-		480,509		84,800
8	12/31/2010	3,553,056	-	-		3,553,056		127,832
9	12/31/2011	7,177,211	-	-		7,177,211		198,348
10	12/31/2012	13,654,069	-	-		13,654,069		294,577
11	12/31/2013	14,678,389	-	-		14,678,389		24,380,117
12	12/31/2014	15,152,993	-	-		15,152,993		26,056,704
13	12/31/2015	14,539,006	-	-		14,539,006		27,290,868
14	12/31/2016	13,883,815	-	-		13,883,815		28,578,421
15	12/31/2017	13,255,915	-	-		13,255,915		29,956,559
16	12/31/2018	12,653,016	-	-		12,653,016		31,612,174
17	12/31/2019	12,016,402	-	-		12,016,402		33,594,783
18	12/31/2020	11,379,788	-	-		11,379,788		35,566,861
19	12/31/2021	10,743,173	-	-		10,743,173		38,056,766
20	12/31/2022	10,106,559	-	-		10,106,559		39,920,041
21	12/31/2023	9,469,945	-	-		9,469,945		41,890,306
22	12/31/2024	8,833,331	-	-		8,833,331		44,529,811
23	12/31/2025	8,196,717	-	-		8,196,717		47,885,193
24	12/31/2026	7,560,103	52,720	-		7,612,823		51,399,644
25	12/31/2027	6,923,489	156,032	-		7,079,520		54,431,913
26	12/31/2028	6,286,875	993,170	-		7,280,044		55,178,509
27	12/31/2029	5,650,260	2,639,761	-		8,290,021		57,858,589
28	12/31/2030	5,013,646	3,691,001	-		8,704,647		60,699,474
29	12/31/2031	4,377,032	3,904,584	-		8,281,616		63,710,812
30	12/31/2032	3,740,418	3,734,217	-		7,474,635		66,902,830
31	12/31/2033	3,103,804	3,563,850	-		6,667,654		70,286,369
32	12/31/2034	2,467,190	3,393,483	-		5,860,673		73,872,921
33	12/31/2035	1,830,576	3,223,116	-		5,053,692		77,674,665

	I	J	K
1	**terling Ventures Mine**		
2			
3	&M		Total
4			
5	Beneficial	Total	
6	Reuse	O&M	
7	-	84,800	565,309
8	-	127,832	3,680,888
9	-	198,348	7,375,559
10	-	294,577	13,948,646
11	(489,556)	23,890,561	38,568,950
12	(495,467)	25,561,237	40,714,230
13	(436,289)	26,854,579	41,393,584
14	(387,511)	28,190,911	42,074,725
15	(348,918)	29,607,640	42,863,556
16	(501,636)	31,110,538	43,763,554
17	(873,325)	32,721,458	44,737,860
18	(1,101,031)	34,465,830	45,845,618
19	(1,114,736)	36,942,030	47,685,203
20	(1,025,754)	38,894,287	49,000,846
21	(931,433)	40,958,872	50,428,818
22	(1,382,478)	43,147,333	51,980,664
23	(2,392,499)	45,492,694	53,689,411
24	(3,382,211)	48,017,432	55,630,256
25	(3,728,255)	50,703,658	57,783,179
26	(3,378,832)	51,799,676	59,079,720
27	(2,798,637)	55,059,952	63,349,973
28	(2,349,913)	58,349,561	67,054,208
29	(2,101,930)	61,608,882	69,890,498
30	(1,942,577)	64,960,253	72,434,888
31	(1,773,662)	68,512,707	75,180,361
32	(1,594,613)	72,278,307	78,138,980
33	(1,404,821)	76,269,844	81,323,536

	A	B	C	D	E	F	G	H
34	12/31/2036	1,193,961	3,052,749	-		4,246,711		81,704,515
35	12/31/2037	557,347	2,882,383	-		3,439,730		85,976,155
36	2009 PVRR	111,212,472	5,355,077	-		116,567,550		354,316,774
37								
38	Cubic Yards	17,350,000	7,807,500			25,157,500		25,157,500
39								
40				Option 30 with				
41	CASE		Option 30	Benefical Reuse				
42	PVRR							
43	Capital		$ 192,717,582	$ 116,567,550				
44	O&M		354,316,774	343,867,798				
45	Total		$ 547,034,356	$ 460,435,348				
46	Delta to Least Cost		**$ 86,599,008**	Least Cost				
47								
48	Unit Cost (2009 PVRR $/CY)		$ 21.74	$ 18.30				

	I	J	K
34	(1,203,641)	80,500,873	84,747,584
35	(990,391)	84,985,764	88,425,494
36	(10,448,976)	343,867,798	460,435,348
37			
38		25,157,500	25,157,500
39		$/CY (PVRR)	$ 18.30
40			
41			
42			
43			
44			
45			
46			
47			
48			

	A	B	C	D	E	F	G	H
1	NOTE-This Table	**Annual Revenue Requirements - Ghent Landfill - KU Project 30 with Beneficial Reuse -Sterling Venture**						
2	Requires $9.00							
3	Price Inserted	Capital					O	
4	into cell D16 of							
5	PVRR Analysis							
6		Phase 1	Phase 2	Phase 3	Final Cap	Total	Non-Power	Power
7	12/31/2009	480,509	-	-		480,509		84,800
8	12/31/2010	3,553,056	-	-		3,553,056		127,832
9	12/31/2011	7,177,211	-	-		7,177,211		198,348
10	12/31/2012	13,654,069	-	-		13,654,069		294,577
11	12/31/2013	14,678,389	-	-		14,678,389		24,380,117
12	12/31/2014	15,152,993	-	-		15,152,993		26,056,704
13	12/31/2015	14,539,006	-	-		14,539,006		27,290,868
14	12/31/2016	13,883,815	-	-		13,883,815		28,578,421
15	12/31/2017	13,255,915	-	-		13,255,915		29,956,559
16	12/31/2018	12,653,016	-	-		12,653,016		31,612,174
17	12/31/2019	12,016,402	-	-		12,016,402		33,594,783
18	12/31/2020	11,379,788	-	-		11,379,788		35,566,861
19	12/31/2021	10,743,173	-	-		10,743,173		38,056,766
20	12/31/2022	10,106,559	-	-		10,106,559		39,920,041
21	12/31/2023	9,469,945	-	-		9,469,945		41,890,306
22	12/31/2024	8,833,331	-	-		8,833,331		44,529,811
23	12/31/2025	8,196,717	-	-		8,196,717		47,885,193
24	12/31/2026	7,560,103	52,720	-		7,612,823		51,399,644
25	12/31/2027	6,923,489	156,032	-		7,079,520		54,431,913
26	12/31/2028	6,286,875	993,170	-		7,280,044		55,178,509
27	12/31/2029	5,650,260	2,639,761	-		8,290,021		57,858,589
28	12/31/2030	5,013,646	3,691,001	-		8,704,647		60,699,474
29	12/31/2031	4,377,032	3,904,584	-		8,281,616		63,710,812
30	12/31/2032	3,740,418	3,734,217	-		7,474,635		66,902,830
31	12/31/2033	3,103,804	3,563,850	-		6,667,654		70,286,369
32	12/31/2034	2,467,190	3,393,483	-		5,860,673		73,872,921
33	12/31/2035	1,830,576	3,223,116	-		5,053,692		77,674,665

	I	J	K
1	**s Mine With Scrubber Stone Backhaul**		
2			
3	&M		Total
4			
5	Beneficial	Total	
6	Reuse	O&M	
7	-	84,800	565,309
8	-	127,832	3,680,888
9	-	198,348	7,375,559
10	-	294,577	13,948,646
11	(489,556)	23,890,561	38,568,950
12	(495,467)	25,561,237	40,714,230
13	(436,289)	26,854,579	41,393,584
14	(387,511)	28,190,911	42,074,725
15	(348,918)	29,607,640	42,863,556
16	(501,636)	31,110,538	43,763,554
17	(873,325)	32,721,458	44,737,860
18	(1,101,031)	34,465,830	45,845,618
19	(1,114,736)	36,942,030	47,685,203
20	(1,025,754)	38,894,287	49,000,846
21	(931,433)	40,958,872	50,428,818
22	(1,382,478)	43,147,333	51,980,664
23	(2,392,499)	45,492,694	53,689,411
24	(3,382,211)	48,017,432	55,630,256
25	(3,728,255)	50,703,658	57,783,179
26	(3,378,832)	51,799,676	59,079,720
27	(2,798,637)	55,059,952	63,349,973
28	(2,349,913)	58,349,561	67,054,208
29	(2,101,930)	61,608,882	69,890,498
30	(1,942,577)	64,960,253	72,434,888
31	(1,773,662)	68,512,707	75,180,361
32	(1,594,613)	72,278,307	78,138,980
33	(1,404,821)	76,269,844	81,323,536

	A	B	C	D	E	F	G	H
34	12/31/2036	1,193,961	3,052,749	-		4,246,711		81,704,515
35	12/31/2037	557,347	2,882,383	-		3,439,730		85,976,155
36	2009 PVRR	111,212,472	5,355,077	-		116,567,550		354,316,774
37								
38	Cubic Yards	17,350,000	7,807,500			25,157,500		25,157,500
39								
40				Option 30 with				
41	CASE		Option 30	Benefical Reuse				
42	PVRR							
43	Capital		$ 192,717,582	$ 116,567,550				
44	O&M		354,316,774	343,867,798				
45	Total		$ 547,034,356	$ 460,435,348				
46	Delta to Least Cost		**$ 86,599,008**	Least Cost				
47								
48	Unit Cost (2009 PVRR $/CY)		$ 21.74	$ 18.30				

	I	J	K
34	(1,203,641)	80,500,873	84,747,584
35	(990,391)	84,985,764	88,425,494
36	(10,448,976)	343,867,798	460,435,348
37			
38		25,157,500	25,157,500
39		$/CY (PVRR)	$ 18.30
40			
41			
42			
43			
44			
45			
46			
47			
48			

	A	B	C	D	E	F	G	H	I
1		Dry	Gypsum	Gypsum	Operation and	Phase II	Phase III	Total	Hauling
2		Gypsum	Fines	Dewatering	Maintenance	Construction	Construction	Capital Cost	Gypsum to
3		Handling	Project	Facility	Dry Gypsum				Landfill
4		System		Earthwork	Handling				
5					System				
6									
7	12/31/2010	$ 7,790,000	$ 6,300,000	$ -	$ -	$ -	$ -	$ 14,090,000	$ -
8	12/31/2011	$ 15,960,000	$ 6,300,000	$ 371,000	$ -	$ -	$ -	$ 22,631,000	$ -
9	12/30/2012	$ 13,050,000	$ -	$ -	$ -	$ -	$ -	$ 13,050,000	$ -
10	12/30/2013	$ -	$ -	$ -	$ 682,495	$ -	$ -	$ 682,495	$ 8,887,032
11	12/30/2014	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 9,420,254
12	12/30/2015	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 9,985,469
13	12/29/2016	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 10,584,598
14	12/29/2017	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 11,219,674
15	12/29/2018	$ -	$ -	$ -	$ -	$ 40,000,000	$ -	$ 40,000,000	$ 11,892,854
16	12/29/2019	$ -	$ -	$ -	$ -	$ 20,000,000	$ -	$ 20,000,000	$ 12,606,426
17	12/28/2020	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 13,362,811
18	12/28/2021	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 14,164,580
19	12/28/2022	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 15,014,455
20	12/28/2023	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 15,915,322
21	12/27/2024	$ -	$ -	$ -	$ -	$ -	$ 40,000,000	$ 40,000,000	$ 16,870,241
22	12/27/2025	$ -	$ -	$ -	$ -	$ -	$ 40,000,000	$ 40,000,000	$ 17,882,456
23	12/27/2026	$ -	$ -	$ -	$ -	$ -	$ 20,000,000	$ 20,000,000	$ 18,955,403
24	12/27/2027	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 20,092,727
25	12/26/2028	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 21,298,291
26	12/26/2029	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 22,576,188
27	12/26/2030	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 23,930,760
28	12/26/2031	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 25,366,605
29	12/25/2032	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 26,888,602
30	12/25/2033	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 28,501,918
31	12/25/2034	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 30,212,033
32	12/25/2035	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 32,024,755

	J	K	L	M	N	O
1	Total	Discount	Haul	Phase III		Discount
2	Cost Gypsum	Rate	Gypsum	Construction		Rate
3	to Ghent	6.70%	to Sterling			6.70%
4	Landfill					
5						
6		PVRR				PVRR
7	$ 14,090,000	$ 289,828,563	$ -	$ -	$ -	$ 252,258,836
8	$ 22,631,000		$ -	$ -	$ -	
9	$ 13,050,000		$ -	$ -	$ -	
10	$ 9,569,527		$ 11,236,000	$ -	$ 11,236,000	
11	$ 9,420,254		$ 11,910,160	$ -	$ 11,910,160	
12	$ 9,985,469		$ 12,624,770	$ -	$ 12,624,770	
13	$ 10,584,598		$ 13,382,256	$ -	$ 13,382,256	
14	$ 11,219,674		$ 14,185,191	$ -	$ 14,185,191	
15	$ 51,892,854		$ 15,036,303	$ -	$ 15,036,303	
16	$ 32,606,426		$ 15,938,481	$ -	$ 15,938,481	
17	$ 13,362,811		$ 16,894,790	$ -	$ 16,894,790	
18	$ 14,164,580		$ 17,908,477	$ -	$ 17,908,477	
19	$ 15,014,455		$ 18,982,986	$ -	$ 18,982,986	
20	$ 15,915,322		$ 20,121,965	$ -	$ 20,121,965	
21	$ 56,870,241		$ 21,329,283	$ 40,000,000	$ 61,329,283	
22	$ 57,882,456		$ 22,609,040	$ 40,000,000	$ 62,609,040	
23	$ 38,955,403		$ 23,965,582	$ 20,000,000	$ 43,965,582	
24	$ 20,092,727		$ 25,403,517	$ -	$ 25,403,517	
25	$ 21,298,291		$ 26,927,728	$ -	$ 26,927,728	
26	$ 22,576,188		$ 28,543,392	$ -	$ 28,543,392	
27	$ 23,930,760		$ 30,255,995	$ -	$ 30,255,995	
28	$ 25,366,605		$ 32,071,355	$ -	$ 32,071,355	
29	$ 26,888,602		$ 33,995,636	$ -	$ 33,995,636	
30	$ 28,501,918		$ 36,035,374	$ -	$ 36,035,374	
31	$ 30,212,033		$ 38,197,497	$ -	$ 38,197,497	
32	$ 32,024,755		$ 40,489,346	$ -	$ 40,489,346	

	A	B	C	D	E	F	G	H	I
33	12/24/2036	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 33,946,240
34	12/24/2037	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 35,983,014
35		$ 36,800,000	$ 12,600,000	$ 371,000	$ 682,495	$ 60,000,000	$ 100,000,000	$ 210,453,495	$ 487,582,709
36					$ 50,453,495		$ 160,000,000		

	J	K	L	M	N	O
33	$ 33,946,240		$ 42,918,707	$ -	$ 42,918,707	
34	$ 35,983,014		$ 45,493,830	$ -	$ 45,493,830	
35	$ 698,036,204		$ 616,457,657	$ 100,000,000	$ 716,457,657	
36						

	A	B	C	D
1	PHASE 1 ONLY			
2	Gypsum Disposal at Sterling Materials			
3				
4	Revenue Requirement			
5	Eligible Plant			
6	Less Gypsum Plant Requirements/Phase Delays			
7	Revised Eligible Plant			
8	Less Accumulated Depreciation			
9	Less Deferred Tax Balance			
10	Environmental Compliance Rate Base			
11	Rate of Return			
12		Assumed	Tons (1.155)	1,000,000
13		86.7500%	Cubic yards	867,500
14	Operating Expenses			
15	less Gypsum to On-site Landfill			
16	Gypsum to Sterling			**$ 10.50**
17	Net Operating			
18	Annual Depreciation			
19	Annual Property Tax Expense			
20	Total OE			
21				
22	Total E(m) Gypsum to Sterling			
23	Total E(m) - Project 30 (See below)			
24				
25	**Difference**		**PVRR**	**7.81%**
26	Date			
27				
28	Revenue Requirments Summary			
29	2009 Amended Plan			
30	Project 30		Ghent Landfill Phase I	
31	See Exhibit B			
32				

	E	F	G	H	I	J	K	L	M
1									
2		2009	2010	2011	2012	2013	2014	2015	2016
3									
4									
5		$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 202,578,976
6		$ -	$ (14,090,000)	$ (40,060,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)
7		$ 4,321,671	$ 32,388,846	$ 65,425,803	$ 124,467,356	$ 138,023,918	$ 148,831,953	$ 149,468,976	$ 149,468,976
8						$ (3,690,414)	$ (7,842,826)	$ (12,013,010)	$ (16,183,194)
9						$ (528,683)	$ (2,857,926)	$ (4,921,730)	$ (6,724,117)
10		$ 4,321,671	$ 32,388,846	$ 65,425,803	$ 124,467,356	$ 133,804,821	$ 138,131,202	$ 132,534,236	$ 126,561,665
11		11.1%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
12		$ 480,509	$ 3,553,056	$ 7,177,211	$ 13,654,069	$ 14,678,389	$ 15,152,993	$ 14,539,006	$ 13,883,815
13									
14		$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244
15						$ (9,569,527)	$ (10,143,699)	$ (10,752,321)	$ (11,397,460)
16						$ 10,500,000	$ 11,130,000	$ 11,797,800	$ 12,505,668
17		$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,933,781	$ 21,129,808	$ 22,397,596	$ 23,741,452
18						$ 3,690,414	$ 4,152,411	$ 4,170,184	$ 4,170,185
19			$ 6,483	$ 69,718	$ 158,229	$ 266,366	$ 279,017	$ 286,798	$ 279,274
20		$ 84,800	$ 127,832	$ 198,348	$ 294,577	$ 23,890,561	$ 25,561,237	$ 26,854,579	$ 28,190,911
21									
22	$ 452,873,199	$ 565,309	$ 3,680,888	$ 7,375,559	$ 13,948,646	$ 38,568,950	$ 40,714,230	$ 41,393,584	$ 42,074,725
23	$ 493,914,773	$ 565,309	$ 5,226,225	$ 11,769,378	$ 19,773,528	$ 44,705,239	$ 46,600,208	$ 46,976,843	$ 47,458,553
24									
25	**$ (41,041,573)**	$ -	$ (1,545,337)	$ (4,393,819)	$ (5,824,882)	$ (6,136,289)	$ (5,885,978)	$ (5,583,259)	$ (5,383,828)
26		12/31/2009	12/31/2010	12/31/2011	12/31/2012	12/31/2013	12/31/2014	12/31/2015	12/31/2016
27									
28									
29									
30									
31		2009	2010	2011	2012	2013	2014	2015	2016
32									**Start Phase II**

	N	O	P	Q	R	S	T	U
1								
2	2017	2018	2019	2020	2021	2022	2023	2024
3								
4								
5	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976
6	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)
7	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976
8	$ (20,353,378)	$ (24,523,563)	$ (28,693,747)	$ (32,863,931)	$ (37,034,115)	$ (41,204,299)	$ (45,374,483)	$ (49,544,667)
9	$ (8,277,719)	$ (9,603,427)	$ (11,236,471)	$ (12,869,515)	$ (14,502,559)	$ (16,135,603)	$ (17,768,648)	$ (19,401,692)
10	$ 120,837,879	$ 115,341,986	$ 109,538,758	$ 103,735,530	$ 97,932,302	$ 92,129,073	$ 86,325,845	$ 80,522,617
11	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
12	$ 13,255,915	$ 12,653,016	$ 12,016,402	$ 11,379,788	$ 10,743,173	$ 10,106,559	$ 9,469,945	$ 8,833,331
13				$ 27,051	$ 661,940			
14	$ 23,991,239	$ 25,430,713	$ 26,956,556	**$ 28,601,000**	**$ 30,979,000**	$ 32,837,740	$ 34,808,004	$ 36,896,485
15	$ (12,081,307)	$ (12,806,186)	$ (13,574,557)	$ (14,389,030)	$ (15,252,372)	$ (16,167,515)	$ (17,137,565)	$ (18,165,819)
16	$ 13,256,008	$ 14,051,369	$ 14,894,451	$ 15,788,118	$ 16,735,405	$ 17,739,529	$ 18,803,901	$ 19,932,135
17	$ 25,165,940	$ 26,675,896	$ 28,276,450	$ 30,000,087	$ 32,462,033	$ 34,409,755	$ 36,474,340	$ 38,662,800
18	$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,170,184
19	$ 270,848	$ 262,514	$ 262,514	$ 262,514	$ 262,514	$ 262,514	$ 262,514	$ 262,514
20	$ 29,606,972	$ 31,108,594	$ 32,709,148	$ 34,432,785	$ 36,894,731	$ 38,842,453	$ 40,907,038	$ 43,095,498
21								
22	$ 42,862,887	$ 43,761,610	$ 44,725,549	$ 45,812,573	$ 47,637,904	$ 48,949,012	$ 50,376,983	$ 51,928,829
23	$ 48,044,547	$ 48,653,648	$ 49,139,584	$ 49,921,210	$ 51,436,391	$ 52,432,312	$ 53,539,758	$ 54,765,419
24								
25	$ (5,181,660)	$ (4,892,038)	$ (4,414,035)	$ (4,108,637)	$ (3,798,487)	$ (3,483,300)	$ (3,162,775)	$ (2,836,590)
26	12/31/2017	12/31/2018	12/31/2019	12/31/2020	12/31/2021	12/31/2022	12/31/2023	12/31/2024
27								
28								
29								
30								
31	2017	2018	2019	2020	2021	2022	2023	2024
32								**Start Phase III**

	V	W	X	Y	Z	AA	AB	AC
1								
2	2025	2026	2027	2028	2029	2030	2031	2032
3		**Start Phase II**						
4								
5	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976
6	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)
7	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976
8	$ (53,714,851)	$ (57,885,036)	$ (62,055,220)	$ (66,225,404)	$ (70,395,588)	$ (74,565,772)	$ (78,735,956)	$ (82,906,140)
9	$ (21,034,736)	$ (22,667,780)	$ (24,300,824)	$ (25,933,868)	$ (27,566,912)	$ (29,199,956)	$ (30,833,000)	$ (32,466,045)
10	$ 74,719,389	$ 68,916,161	$ 63,112,932	$ 57,309,704	$ 51,506,476	$ 45,703,248	$ 39,900,019	$ 34,096,791
11	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
12	$ 8,196,717	$ 7,560,103	$ 6,923,489	$ 6,286,875	$ 5,650,260	$ 5,013,646	$ 4,377,032	$ 3,740,418
13				$ (1,912,962)				
14	$ 39,110,274	$ 41,456,890	$ 43,944,304	**$ 44,668,000**	$ 47,348,080	$ 50,188,965	$ 53,200,303	$ 56,392,321
15	$ (19,255,768)	$ (20,411,115)	$ (21,635,781)	$ (22,933,928)	$ (24,309,964)	$ (25,768,562)	$ (27,314,676)	$ (28,953,556)
16	$ 21,128,063	$ 22,395,747	$ 23,739,492	$ 25,163,861	$ 26,673,693	$ 28,274,114	$ 29,970,561	$ 31,768,795
17	$ 40,982,568	$ 43,441,522	$ 46,048,014	$ 46,897,933	$ 49,711,809	$ 52,694,517	$ 55,856,188	$ 59,207,559
18	$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,170,184
19	$ 262,514	$ 262,514	$ 262,514	$ 262,514	$ 262,514	$ 262,514	$ 262,514	$ 262,514
20	$ 45,415,266	$ 47,874,220	$ 50,480,712	$ 51,330,631	$ 54,144,507	$ 57,127,215	$ 60,288,886	$ 63,640,258
21								
22	$ 53,611,983	$ 55,434,323	$ 57,404,200	$ 57,617,505	$ 59,794,767	$ 62,140,862	$ 64,665,918	$ 67,380,676
23	$ 56,116,389	$ 57,600,187	$ 59,224,782	$ 59,085,659	$ 60,902,921	$ 62,880,987	$ 65,029,506	$ 67,358,705
24								
25	$ (2,504,406)	$ (2,165,864)	$ (1,820,581)	$ (1,468,154)	$ (1,108,153)	$ (740,125)	$ (363,587)	$ 21,971
26	12/31/2025	12/31/2026	12/31/2027	12/31/2028	12/31/2029	12/31/2030	12/31/2031	12/31/2032
27								
28								
29								
30								
31	2025	2026	2027	2028	2029	2030	2031	2032
32								

	AD	AE	AF	AG	AH	AI
1						
2	2033	2034	2035	2036	2037	
3						
4						
5	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	
6	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	
7	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976	
8	$ (87,076,324)	$ (91,246,509)	$ (95,416,693)	$ (99,586,877)	$ (103,757,061)	
9	$ (34,099,089)	$ (35,732,133)	$ (37,365,177)	$ (38,998,221)	$ (40,631,265)	
10	$ 28,293,563	$ 22,490,335	$ 16,687,107	$ 10,883,878	$ 5,080,650	
11	10.97%	10.97%	10.97%	10.97%	10.97%	
12	$ 3,103,804	$ 2,467,190	$ 1,830,576	$ 1,193,961	$ 557,347	$ 228,478,594
13						
14	$ 59,775,860	$ 63,362,412	$ 67,164,156	$ 71,194,006	$ 75,465,646	
15	$ (30,690,769)	$ (32,532,216)	$ (34,484,149)	$ (36,553,198)	$ (38,746,389)	
16	$ 33,674,922	$ 35,695,418	$ 37,837,143	$ 40,107,371	$ 42,513,814	
17	$ 62,760,013	$ 66,525,614	$ 70,517,151	$ 74,748,180	$ 79,233,071	
18	$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,170,184	
19	$ 262,514	$ 262,514	$ 262,514	$ 262,514	$ 262,514	
20	$ 67,192,711	$ 70,958,312	$ 74,949,849	$ 79,180,878	$ 83,665,769	
21						
22	$ 70,296,515	$ 73,425,502	$ 76,780,424	$ 80,374,839	$ 84,223,116	$ 1,427,527,870
23	$ 69,879,426	$ 72,603,158	$ 75,542,084	$ 78,709,115	$ 82,117,936	$ 1,498,059,007
24						
25	$ 417,089	$ 822,343	$ 1,238,340	$ 1,665,724	$ 2,105,179	**$ (70,531,137)**
26	12/31/2033	12/31/2034	12/31/2035	12/31/2036	12/31/2037	
27						$ (70,531,137)
28						
29						
30						
31	2033	2034	2035	2036	2037	
32						

	A	B	C	D
33	Revenue Requirement			
34	Eligible Plant			
35	Less Gypsum Plant Requirements/Phase Delays			
36	Revised Eligible Plant			
37	Less Accumulated Depreciation			
38	Less Deferred Tax Balance			
39	Environmental Compliance Rate Base			
40	Rate of Return			
41				
42				
43	Operating Expenses			
44	less Gypsum to On-site Landfill			
45	Gypsum to Sterling			
46	Net Operating			
47	Annual Depreciation			
48	Annual Property Tax Expense			
49	Total OE			
50				
51	Total E(m) Gypsum to On-site Landfill as Calculated			
52	Total E(m) Gypsum to On-site Landfill per KU			
53				
54	Calculation Check Difference			
55				
56				
57	Site E/F	Hauling cost of Ash 2.25 mile round trip		
58		Haul Road Maintenance		
59	Total			
60	Reduce by 50% for Site M			
61	**Difference**		**PVRR**	**7.81%**

	E	F	G	H	I	J	K	L	M
33									
34		$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 202,578,976
35		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
36		$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 202,578,976
37						$ (5,110,443)	$ (10,744,623)	$ (16,396,576)	$ (22,048,530)
38						$ (732,114)	$ (3,915,341)	$ (6,717,677)	$ (9,161,164)
39		$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 185,291,361	$ 187,281,989	$ 179,464,723	$ 171,369,282
40		11.1%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
41		$ 480,509	$ 5,098,729	$ 11,571,793	$ 19,480,236	$ 20,326,462	$ 20,544,834	$ 19,687,280	$ 18,799,210
42									
43		$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244
44						$ -	$ -	$ -	$ -
45						$ -	$ -	$ -	$ -
46		$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244
47						$ 5,110,443	$ 5,634,180	$ 5,651,953	$ 5,651,954
48			$ 6,483	$ 69,718	$ 158,229	$ 266,366	$ 279,017	$ 286,798	$ 279,274
49		$ 84,800	$ 127,832	$ 198,348	$ 294,577	$ 24,380,117	$ 26,056,704	$ 27,290,868	$ 28,564,471
50									
51		$ 565,309	$ 5,226,561	$ 11,770,141	$ 19,774,813	$ 44,706,579	$ 46,601,539	$ 46,978,148	$ 47,363,682
52		$ 565,309	$ 5,226,225	$ 11,769,378	$ 19,773,528	$ 44,705,239	$ 46,600,208	$ 46,976,843	$ 47,458,553
53									
54		$ -	$ 336	$ 763	$ 1,285	$ 1,340	$ 1,331	$ 1,305	$ (94,871)
55									
56									
57						$ 2,822,723	$ 2,992,086	$ 3,171,612	$ 3,361,908
58						$ 53,529	$ 56,741	$ 60,145	$ 63,754
59						$ 2,876,252	$ 3,048,827	$ 3,231,757	$ 3,425,662
60		$ -	$ -	$ -	$ -	$ 1,438,126	$ 1,524,414	$ 1,615,878	$ 1,712,831
61	**$ (21,865,903)**								

	N	O	P	Q	R	S	T	U
33								
34	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976
35	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
36	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976
37	$ (27,700,483)	$ (33,352,436)	$ (39,004,389)	$ (44,656,342)	$ (50,308,295)	$ (55,960,248)	$ (61,612,201)	$ (67,264,154)
38	$ (11,265,786)	$ (13,060,814)	$ (15,274,119)	$ (17,487,423)	$ (19,700,728)	$ (21,914,033)	$ (24,127,338)	$ (26,340,643)
39	$ 163,612,707	$ 156,165,726	$ 148,300,469	$ 140,435,211	$ 132,569,953	$ 124,704,695	$ 116,839,437	$ 108,974,180
40	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
41	$ 17,948,314	$ 17,131,380	$ 16,268,561	$ 15,405,743	$ 14,542,924	$ 13,680,105	$ 12,817,286	$ 11,954,467
42				$ 27,051	$ 661,940			
43	$ 23,991,239	$ 25,430,713	$ 26,956,556	**$ 28,601,000**	**$ 30,979,000**	$ 32,837,740	$ 34,808,004	$ 36,896,485
44	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
45	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
46	$ 23,991,239	$ 25,430,713	$ 26,956,556	$ 28,601,000	$ 30,979,000	$ 32,837,740	$ 34,808,004	$ 36,896,485
47	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953
48	$ 270,848	$ 262,514	$ 262,514	$ 262,514	$ 262,514	$ 262,514	$ 262,514	$ 262,514
49	$ 29,914,040	$ 31,345,180	$ 32,871,023	$ 34,515,467	$ 36,893,467	$ 38,752,207	$ 40,722,471	$ 42,810,952
50								
51	$ 47,862,354	$ 48,476,560	$ 49,139,584	$ 49,921,210	$ 51,436,391	$ 52,432,312	$ 53,539,758	$ 54,765,419
52	$ 48,044,547	$ 48,653,648						
53								
54	$ (182,193)	$ (177,088)						
55								
56								
57	$ 3,563,623	$ 3,777,440	$ 4,004,087	$ 4,244,332	$ 4,498,992	$ 4,768,931	$ 5,055,067	$ 5,358,371
58	$ 67,579	$ 71,634	$ 75,932	$ 80,488	$ 85,317	$ 90,436	$ 95,862	$ 101,614
59	$ 3,631,202	$ 3,849,074	$ 4,080,018	$ 4,324,820	$ 4,584,309	$ 4,859,367	$ 5,150,929	$ 5,459,985
60	$ 1,815,601	$ 1,924,537	$ 2,040,009	$ 2,162,410	$ 2,292,154	$ 2,429,684	$ 2,575,465	$ 2,729,993
61								

	V	W	X	Y	Z	AA	AB	AC
33								
34	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976
35	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
36	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976
37	$ (72,916,107)	$ (78,568,060)	$ (84,220,013)	$ (89,871,966)	$ (95,523,919)	$ (101,175,872)	$ (106,827,825)	$ (112,479,778)
38	$ (28,553,947)	$ (30,767,252)	$ (32,980,557)	$ (35,193,862)	$ (37,407,167)	$ (39,620,471)	$ (41,833,776)	$ (44,047,081)
39	$ 101,108,922	$ 93,243,664	$ 85,378,406	$ 77,513,148	$ 69,647,890	$ 61,782,633	$ 53,917,375	$ 46,052,117
40	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
41	$ 11,091,649	$ 10,228,830	$ 9,366,011	$ 8,503,192	$ 7,640,374	$ 6,777,555	$ 5,914,736	$ 5,051,917
42				$ (1,912,962)				
43	$ 39,110,274	$ 41,456,890	$ 43,944,304	**$ 44,668,000**	$ 47,348,080	$ 50,188,965	$ 53,200,303	$ 56,392,321
44	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
45	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
46	$ 39,110,274	$ 41,456,890	$ 43,944,304	$ 44,668,000	$ 47,348,080	$ 50,188,965	$ 53,200,303	$ 56,392,321
47	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953
48	$ 262,514	$ 262,514	$ 262,514	$ 262,514	$ 262,514	$ 262,514	$ 262,514	$ 262,514
49	$ 45,024,741	$ 47,371,357	$ 49,858,771	$ 50,582,467	$ 53,262,547	$ 56,103,432	$ 59,114,770	$ 62,306,788
50								
51	$ 56,116,389	$ 57,600,187	$ 59,224,782	$ 59,085,659	$ 60,902,921	$ 62,880,987	$ 65,029,506	$ 67,358,705
52								
53								
54								
55								
56								
57	$ 5,679,873	$ 6,020,666	$ 6,381,906	$ 6,764,820	$ 7,170,709	$ 7,600,952	$ 8,057,009	$ 8,540,429
58	$ 107,711	$ 114,174	$ 121,024	$ 128,285	$ 135,982	$ 144,141	$ 152,790	$ 161,957
59	$ 5,787,584	$ 6,134,839	$ 6,502,930	$ 6,893,105	$ 7,306,692	$ 7,745,093	$ 8,209,799	$ 8,702,387
60	$ 2,893,792	$ 3,067,420	$ 3,251,465	$ 3,446,553	$ 3,653,346	$ 3,872,547	$ 4,104,899	$ 4,351,193
61								

	AD	AE	AF	AG	AH	AI
33						$ -
34	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	
35	$ -	$ -	$ -	$ -	$ -	
36	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	
37	$ (118,131,731)	$ (123,783,684)	$ (129,435,637)	$ (135,087,590)	$ (140,739,543)	
38	$ (46,260,386)	$ (48,473,691)	$ (50,686,995)	$ (52,900,300)	$ (55,113,605)	
39	$ 38,186,859	$ 30,321,601	$ 22,456,344	$ 14,591,086	$ 6,725,828	
40	10.97%	10.97%	10.97%	10.97%	10.97%	
41	$ 4,189,098	$ 3,326,280	$ 2,463,461	$ 1,600,642	$ 737,823	$ 312,629,403
42						
43	$ 59,775,860	$ 63,362,412	$ 67,164,156	$ 71,194,006	$ 75,465,646	
44	$ -	$ -	$ -	$ -	$ -	
45	$ -	$ -	$ -	$ -	$ -	
46	$ 59,775,860	$ 63,362,412	$ 67,164,156	$ 71,194,006	$ 75,465,646	
47	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953	
48	$ 262,514	$ 262,514	$ 262,514	$ 262,514	$ 262,514	
49	$ 65,690,327	$ 69,276,879	$ 73,078,623	$ 77,108,473	$ 81,380,113	
50						
51	$ 69,879,426	$ 72,603,158	$ 75,542,084	$ 78,709,115	$ 82,117,936	
52						
53						
54						
55						
56						
57	$ 9,052,855	$ 9,596,026	$ 10,171,788	$ 10,782,095	$ 11,429,021	
58	$ 171,675	$ 181,975	$ 192,894	$ 204,467	$ 216,735	
59	$ 9,224,530	$ 9,778,002	$ 10,364,682	$ 10,986,563	$ 11,645,756	
60	$ 4,612,265	$ 4,889,001	$ 5,182,341	$ 5,493,281	$ 5,822,878	
61						

Cell: D16
Comment: John Walters:
Insert $9.00 for Limestone Backhaul calculation

	A	B	C	D
1	Revenue Requirments Summary			
2	Gypsum Disposal at Sterling Materials			
3				
4	Revenue Requirement			
5	Eligible Plant			
6	Less Gypsum Plant Requirements			
7	Revised Eligible Plant			
8	Less Accumulated Depreciation			
9	Less Deferred Tax Balance			
10	Environmental Compliance Rate Base			
11	Rate of Return			
12		Assumed	Tons (1.155)	1,000,000
13		86.7500%	Cubic yards	867,500
14	Operating Expenses			
15	less Gypsum to On-site Landfill			
16	Gypsum to Sterling			**$ 10.50**
17	Net Operating			
18	Annual Depreciation			
19	Annual Property Tax Expense			
20	Total OE			
21				
22	Total E(m) Gypsum to Sterling			
23	Total E(m) - Project 30 (See below)			
24				
25	**Difference**		**PVRR**	**7.81%**
26	Date			
27				
28	Revenue Requirments Summary			
29	2009 Amended Plan			
30	Project 30		Ghent Landfill Phase I	
31	See Exhibit B			
32				
33	Revenue Requirement			

	E	F	G	H	I	J	K	L
1								
2		2009	2010	2011	2012	2013	2014	2015
3								
4								
5		$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976
6		$ -	$ (14,090,000)	$ (40,060,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)
7		$ 4,321,671	$ 32,388,846	$ 65,425,803	$ 124,467,356	$ 138,023,918	$ 148,831,953	$ 149,468,976
8						$ (3,690,414)	$ (7,842,826)	$ (12,013,010)
9						$ (528,683)	$ (2,857,926)	$ (4,921,730)
10		$ 4,321,671	$ 32,388,846	$ 65,425,803	$ 124,467,356	$ 133,804,821	$ 138,131,202	$ 132,534,236
11		11.1%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
12		$ 480,509	$ 3,553,056	$ 7,177,211	$ 13,654,069	$ 14,678,389	$ 15,152,993	$ 14,539,006
13								
14		$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117
15						$ (9,569,527)	$ (10,143,699)	$ (10,752,321)
16						$ 10,500,000	$ 11,130,000	$ 11,797,800
17		$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,933,781	$ 21,129,808	$ 22,397,596
18						$ 3,690,414	$ 4,152,411	$ 4,170,184
19			$ 6,483	$ 69,718	$ 158,229	$ 266,366	$ 279,017	$ 286,798
20		$ 84,800	$ 127,832	$ 198,348	$ 294,577	$ 23,890,561	$ 25,561,237	$ 26,854,579
21								
22	$ 460,107,063	$ 565,309	$ 3,680,888	$ 7,375,559	$ 13,948,646	$ 38,568,950	$ 40,714,230	$ 41,393,584
23	$ 513,750,912	$ 565,309	$ 5,226,225	$ 11,769,378	$ 19,773,528	$ 44,705,239	$ 46,600,208	$ 46,976,843
24								
25	**$ (53,643,850)**	$ -	$ (1,545,337)	$ (4,393,819)	$ (5,824,882)	$ (6,136,289)	$ (5,885,978)	$ (5,583,259)
26		12/31/2009	12/31/2010	12/31/2011	12/31/2012	12/31/2013	12/31/2014	12/31/2015
27								
28								
29								
30								
31		2009	2010	2011	2012	2013	2014	2015
32								
33								

	M	N	O	P	Q	R	S	T
1								
2	2016	2017	2018	2019	2020	2021	2022	2023
3								
4								
5	$ 203,078,976	$ 204,078,976	$ 212,078,976	$ 228,078,976	$ 239,078,976	$ 242,578,976	$ 242,578,976	$ 242,578,976
6	$ (53,610,000)	$ (54,610,000)	$ (62,610,000)	$ (78,610,000)	$ (89,610,000)	$ (93,110,000)	$ (93,110,000)	$ (93,110,000)
7	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976
8	$ (16,183,194)	$ (20,353,378)	$ (24,523,563)	$ (28,693,747)	$ (32,863,931)	$ (37,034,115)	$ (41,204,299)	$ (45,374,483)
9	$ (6,724,117)	$ (8,277,719)	$ (9,603,427)	$ (11,236,471)	$ (12,869,515)	$ (14,502,559)	$ (16,135,603)	$ (17,768,648)
10	$ 126,561,665	$ 120,837,879	$ 115,341,986	$ 109,538,758	$ 103,735,530	$ 97,932,302	$ 92,129,073	$ 86,325,845
11	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
12	$ 13,883,815	$ 13,255,915	$ 12,653,016	$ 12,016,402	$ 11,379,788	$ 10,743,173	$ 10,106,559	$ 9,469,945
13					$ 27,051	$ 661,940		
14	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,556	**$ 28,601,000**	**$ 30,979,000**	$ 32,837,740	$ 34,808,004
15	$ (11,397,460)	$ (12,081,307)	$ (12,806,186)	$ (13,574,557)	$ (14,389,030)	$ (15,252,372)	$ (16,167,515)	$ (17,137,565)
16	$ 12,505,668	$ 13,256,008	$ 14,051,369	$ 14,894,451	$ 15,788,118	$ 16,735,405	$ 17,739,529	$ 18,803,901
17	$ 23,741,452	$ 25,165,940	$ 26,675,896	$ 28,276,450	$ 30,000,087	$ 32,462,033	$ 34,409,755	$ 36,474,340
18	$ 4,170,185	$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,170,184
19	$ 279,274	$ 271,517	$ 264,458	$ 274,825	$ 295,558	$ 309,813	$ 314,348	$ 314,348
20	$ 28,190,911	$ 29,607,640	$ 31,110,538	$ 32,721,458	$ 34,465,830	$ 36,942,030	$ 38,894,287	$ 40,958,872
21								
22	$ 42,074,725	$ 42,863,556	$ 43,763,554	$ 44,737,860	$ 45,845,618	$ 47,685,203	$ 49,000,846	$ 50,428,818
23	$ 47,458,553	$ 48,044,547	$ 48,653,648	$ 52,503,105	$ 54,663,605	$ 56,504,274	$ 57,334,363	$ 58,271,442
24								
25	$ (5,383,828)	$ (5,180,991)	$ (4,890,094)	$ (7,765,245)	$ (8,817,987)	$ (8,819,070)	$ (8,333,517)	$ (7,842,625)
26	12/31/2016	12/31/2017	12/31/2018	12/31/2019	12/31/2020	12/31/2021	12/31/2022	12/31/2023
27								
28								
29								
30								
31	2016	2017	2018	2019	2020	2021	2022	2023
32	**Start Phase II**							
33	$ 500,000	$ 1,000,000	$ 8,000,000	$ 16,000,000	$ 11,000,000	$ 3,500,000		

	U	V	W	X	Y	Z	AA	AB
1								
2	2024	2025	2026	2027	2028	2029	2030	2031
3			**Start Phase II**					
4			$ 500,000	$ 1,000,000	$ 8,000,000	$ 16,000,000	$ 11,000,000	$ 3,500,000
5	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976
6	$ (93,110,000)	$ (93,110,000)	$ (92,610,000)	$ (91,610,000)	$ (83,610,000)	$ (67,610,000)	$ (56,610,000)	$ (53,110,000)
7	$ 149,468,976	$ 149,468,976	$ 149,968,976	$ 150,968,976	$ 158,968,976	$ 174,968,976	$ 185,968,976	$ 189,468,976
8	$ (49,544,667)	$ (53,714,851)	$ (57,898,986)	$ (62,111,020)	$ (66,546,254)	$ (71,427,888)	$ (76,616,422)	$ (81,902,606)
9	$ (19,401,692)	$ (21,034,736)	$ (22,673,243)	$ (24,322,675)	$ (26,059,513)	$ (27,971,161)	$ (30,002,991)	$ (32,073,060)
10	$ 80,522,617	$ 74,719,389	$ 69,396,748	$ 64,535,281	$ 66,363,209	$ 75,569,927	$ 79,349,563	$ 75,493,310
11	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
12	$ 8,833,331	$ 8,196,717	$ 7,612,823	$ 7,079,520	$ 7,280,044	$ 8,290,021	$ 8,704,647	$ 8,281,616
13					$ (1,912,962)			
14	$ 36,896,485	$ 39,110,274	$ 41,456,890	$ 43,944,304	**$ 44,668,000**	$ 47,348,080	$ 50,188,965	$ 53,200,303
15	$ (18,165,819)	$ (19,255,768)	$ (20,411,115)	$ (21,635,781)	$ (22,933,928)	$ (24,309,964)	$ (25,768,562)	$ (27,314,676)
16	$ 19,932,135	$ 21,128,063	$ 22,395,747	$ 23,739,492	$ 25,163,861	$ 26,673,693	$ 28,274,114	$ 29,970,561
17	$ 38,662,800	$ 40,982,568	$ 43,441,522	$ 46,048,014	$ 46,897,933	$ 49,711,809	$ 52,694,517	$ 55,856,188
18	$ 4,170,184	$ 4,170,184	$ 4,184,134	$ 4,212,034	$ 4,435,234	$ 4,881,634	$ 5,188,534	$ 5,286,184
19	$ 314,348	$ 314,348	$ 314,348	$ 314,348	$ 314,348	$ 314,348	$ 314,348	$ 314,348
20	$ 43,147,333	$ 45,467,101	$ 47,940,005	$ 50,574,396	$ 51,647,515	$ 54,907,791	$ 58,197,400	$ 61,456,721
21								
22	$ 51,980,664	$ 53,663,818	$ 55,552,828	$ 57,653,917	$ 58,927,559	$ 63,197,812	$ 66,902,047	$ 69,738,337
23	$ 59,326,737	$ 60,507,340	$ 61,820,771	$ 63,274,999	$ 62,965,509	$ 64,612,404	$ 66,420,103	$ 68,398,255
24								
25	$ (7,346,073)	$ (6,843,522)	$ (6,267,943)	$ (5,621,082)	$ (4,037,950)	$ (1,414,592)	$ 481,944	$ 1,340,082
26	12/31/2024	12/31/2025	12/31/2026	12/31/2027	12/31/2028	12/31/2029	12/31/2030	12/31/2031
27								
28								
29								
30								
31	2024	2025	2026	2027	2028	2029	2030	2031
32	**Start Phase III**							
33								

	AC	AD	AE	AF	AG	AH	AI
1							
2	2032	2033	2034	2035	2036	2037	
3							
4							
5	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	
6	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	
7	$ 189,468,976	$ 189,468,976	$ 189,468,976	$ 189,468,976	$ 189,468,976	$ 189,468,976	
8	$ (87,188,790)	$ (92,474,974)	$ (97,761,158)	$ (103,047,342)	$ (108,333,526)	$ (113,619,710)	
9	$ (34,143,130)	$ (36,213,200)	$ (38,283,269)	$ (40,353,339)	$ (42,423,409)	$ (44,493,479)	
10	$ 68,137,056	$ 60,780,802	$ 53,424,548	$ 46,068,295	$ 38,712,041	$ 31,355,787	
11	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	
12	$ 7,474,635	$ 6,667,654	$ 5,860,673	$ 5,053,692	$ 4,246,711	$ 3,439,730	$ 259,765,660
13							
14	$ 56,392,321	$ 59,775,860	$ 63,362,412	$ 67,164,156	$ 71,194,006	$ 75,465,646	
15	$ (28,953,556)	$ (30,690,769)	$ (32,532,216)	$ (34,484,149)	$ (36,553,198)	$ (38,746,389)	
16	$ 31,768,795	$ 33,674,922	$ 35,695,418	$ 37,837,143	$ 40,107,371	$ 42,513,814	
17	$ 59,207,559	$ 62,760,013	$ 66,525,614	$ 70,517,151	$ 74,748,180	$ 79,233,071	
18	$ 5,286,184	$ 5,286,184	$ 5,286,184	$ 5,286,184	$ 5,286,184	$ 5,286,184	
19	$ 314,348	$ 314,348	$ 314,348	$ 314,348	$ 314,348	$ 314,348	
20	$ 64,808,092	$ 68,360,546	$ 72,126,146	$ 76,117,683	$ 80,348,712	$ 84,833,603	
21							
22	$ 72,282,727	$ 75,028,199	$ 77,986,819	$ 81,171,375	$ 84,595,423	$ 88,273,333	$ 1,469,602,202
23	$ 70,557,087	$ 72,907,441	$ 75,460,807	$ 78,229,366	$ 81,226,030	$ 84,464,484	$ 1,569,221,600
24							
25	$ 1,725,639	$ 2,120,758	$ 2,526,012	$ 2,942,009	$ 3,369,393	$ 3,808,848	**$ (99,619,398)**
26	12/31/2032	12/31/2033	12/31/2034	12/31/2035	12/31/2036	12/31/2037	
27							$ (99,619,398)
28							
29							
30							
31	2032	2033	2034	2035	2036	2037	
32							
33							$ -

	A	B	C	D
34	Eligible Plant			
35	Less Gypsum Plant Requirements			
36	Revised Eligible Plant			
37	Less Accumulated Depreciation			
38	Less Deferred Tax Balance			
39	Environmental Compliance Rate Base			
40	Rate of Return			
41				
42				
43	Operating Expenses			
44	less Gypsum to On-site Landfill			
45	Gypsum to Sterling			
46	Net Operating			
47	Annual Depreciation			
48	Annual Property Tax Expense			
49	Total OE			
50				
51	Total E(m) Gypsum to On-site Landfill as Calculated			
52	Total E(m) Gypsum to On-site Landfill per KU			
53				
54	Calculation Check Difference			
55				
56				
57	Site E/F	Hauling cost of Ash 2.25 mile round trip		
58		Haul Road Maintenance		
59	Total			
60	Reduce by 50% for Site M			
61	**Difference**		**PVRR**	**7.81%**

	E	F	G	H	I	J	K	L
34		$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976
35		$ -	$ -	$ -	$ -	$ -	$ -	$ -
36		$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976
37						$ (5,110,443)	$ (10,744,623)	$ (16,396,576)
38						$ (732,114)	$ (3,915,341)	$ (6,717,677)
39		$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 185,291,361	$ 187,281,989	$ 179,464,723
40		11.1%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
41		$ 480,509	$ 5,098,729	$ 11,571,793	$ 19,480,236	$ 20,326,462	$ 20,544,834	$ 19,687,280
42								
43		$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117
44						$ -	$ -	$ -
45						$ -	$ -	$ -
46		$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117
47						$ 5,110,443	$ 5,634,180	$ 5,651,953
48			$ 6,483	$ 69,718	$ 158,229	$ 266,366	$ 279,017	$ 286,798
49		$ 84,800	$ 127,832	$ 198,348	$ 294,577	$ 24,380,117	$ 26,056,704	$ 27,290,868
50								
51		$ 565,309	$ 5,226,561	$ 11,770,141	$ 19,774,813	$ 44,706,579	$ 46,601,539	$ 46,978,148
52		$ 565,309	$ 5,226,225	$ 11,769,378	$ 19,773,528	$ 44,705,239	$ 46,600,208	$ 46,976,843
53								
54		$ -	$ 336	$ 763	$ 1,285	$ 1,340	$ 1,331	$ 1,305
55								
56								
57						$ 2,822,723	$ 2,992,086	$ 3,171,612
58						$ 53,529	$ 56,741	$ 60,145
59						$ 2,876,252	$ 3,048,827	$ 3,231,757
60		$ -	$ -	$ -	$ -	$ 1,438,126	$ 1,524,414	$ 1,615,878
61	**$ (21,865,903)**							

	M	N	O	P	Q	R	S	T
34	$ 203,078,976	$ 204,078,976	$ 212,078,976	$ 228,078,976	$ 239,078,976	$ 242,578,976	$ 242,578,976	$ 242,578,976
35	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
36	$ 203,078,976	$ 204,078,976	$ 212,078,976	$ 228,078,976	$ 239,078,976	$ 242,578,976	$ 242,578,976	$ 242,578,976
37	$ (22,062,480)	$ (27,756,283)	$ (33,673,286)	$ (40,036,689)	$ (46,706,992)	$ (53,474,945)	$ (60,242,897)	$ (67,010,850)
38	$ (9,166,960)	$ (11,288,480)	$ (13,186,459)	$ (15,678,367)	$ (18,290,458)	$ (20,940,788)	$ (23,591,119)	$ (26,241,449)
39	$ 171,849,536	$ 165,034,213	$ 165,219,232	$ 172,363,920	$ 174,081,526	$ 168,163,243	$ 158,744,960	$ 149,326,677
40	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
41	$ 18,851,894	$ 18,104,253	$ 18,124,550	$ 18,908,322	$ 19,096,743	$ 18,447,508	$ 17,414,322	$ 16,381,136
42					$ 27,051	$ 661,940		
43	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,556	**$ 28,601,000**	**$ 30,979,000**	$ 32,837,740	$ 34,808,004
44	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
45	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
46	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,556	$ 28,601,000	$ 30,979,000	$ 32,837,740	$ 34,808,004
47	$ 5,665,904	$ 5,693,803	$ 5,917,003	$ 6,363,403	$ 6,670,303	$ 6,767,953	$ 6,767,953	$ 6,767,953
48	$ 279,274	$ 271,517	$ 264,458	$ 274,825	$ 295,558	$ 309,813	$ 314,348	$ 314,348
49	$ 28,578,421	$ 29,956,559	$ 31,612,174	$ 33,594,783	$ 35,566,861	$ 38,056,766	$ 39,920,041	$ 41,890,306
50								
51	$ 47,430,316	$ 48,060,812	$ 49,736,723	$ 52,503,105	$ 54,663,605	$ 56,504,274	$ 57,334,363	$ 58,271,442
52	$ 47,458,553	$ 48,044,547	$ 48,653,648					
53								
54	$ (28,237)	$ 16,265	$ 1,083,075					
55								
56								
57	$ 3,361,908	$ 3,563,623	$ 3,777,440	$ 4,004,087	$ 4,244,332	$ 4,498,992	$ 4,768,931	$ 5,055,067
58	$ 63,754	$ 67,579	$ 71,634	$ 75,932	$ 80,488	$ 85,317	$ 90,436	$ 95,862
59	$ 3,425,662	$ 3,631,202	$ 3,849,074	$ 4,080,018	$ 4,324,820	$ 4,584,309	$ 4,859,367	$ 5,150,929
60	$ 1,712,831	$ 1,815,601	$ 1,924,537	$ 2,040,009	$ 2,162,410	$ 2,292,154	$ 2,429,684	$ 2,575,465
61								

	U	V	W	X	Y	Z	AA	AB
34	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976
35	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
36	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976
37	$ (73,778,803)	$ (80,546,756)	$ (87,314,709)	$ (94,082,662)	$ (100,850,615)	$ (107,618,568)	$ (114,386,521)	$ (121,154,474)
38	$ (28,891,779)	$ (31,542,110)	$ (34,192,440)	$ (36,842,770)	$ (39,493,101)	$ (42,143,431)	$ (44,793,762)	$ (47,444,092)
39	$ 139,908,393	$ 130,490,110	$ 121,071,827	$ 111,653,543	$ 102,235,260	$ 92,816,977	$ 83,398,693	$ 73,980,410
40	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
41	$ 15,347,951	$ 14,314,765	$ 13,281,579	$ 12,248,394	$ 11,215,208	$ 10,182,022	$ 9,148,837	$ 8,115,651
42					$ (1,912,962)			
43	$ 36,896,485	$ 39,110,274	$ 41,456,890	$ 43,944,304	**$ 44,668,000**	$ 47,348,080	$ 50,188,965	$ 53,200,303
44	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
45	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
46	$ 36,896,485	$ 39,110,274	$ 41,456,890	$ 43,944,304	$ 44,668,000	$ 47,348,080	$ 50,188,965	$ 53,200,303
47	$ 6,767,953	$ 6,767,953	$ 6,767,953	$ 6,767,953	$ 6,767,953	$ 6,767,953	$ 6,767,953	$ 6,767,953
48	$ 314,348	$ 314,348	$ 314,348	$ 314,348	$ 314,348	$ 314,348	$ 314,348	$ 314,348
49	$ 43,978,786	$ 46,192,575	$ 48,539,191	$ 51,026,605	$ 51,750,301	$ 54,430,381	$ 57,271,266	$ 60,282,604
50								
51	$ 59,326,737	$ 60,507,340	$ 61,820,771	$ 63,274,999	$ 62,965,509	$ 64,612,404	$ 66,420,103	$ 68,398,255
52								
53								
54								
55								
56								
57	$ 5,358,371	$ 5,679,873	$ 6,020,666	$ 6,381,906	$ 6,764,820	$ 7,170,709	$ 7,600,952	$ 8,057,009
58	$ 101,614	$ 107,711	$ 114,174	$ 121,024	$ 128,285	$ 135,982	$ 144,141	$ 152,790
59	$ 5,459,985	$ 5,787,584	$ 6,134,839	$ 6,502,930	$ 6,893,105	$ 7,306,692	$ 7,745,093	$ 8,209,799
60	$ 2,729,993	$ 2,893,792	$ 3,067,420	$ 3,251,465	$ 3,446,553	$ 3,653,346	$ 3,872,547	$ 4,104,899
61								

	AC	AD	AE	AF	AG	AH	AI
34	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	
35	$ -	$ -	$ -	$ -	$ -	$ -	
36	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	
37	$ (127,922,427)	$ (134,690,380)	$ (141,458,333)	$ (148,226,286)	$ (154,994,239)	$ (161,762,192)	
38	$ (50,094,422)	$ (52,744,753)	$ (55,395,083)	$ (58,045,413)	$ (60,695,744)	$ (63,346,074)	
39	$ 64,562,127	$ 55,143,844	$ 45,725,560	$ 36,307,277	$ 26,888,994	$ 17,470,710	
40	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	
41	$ 7,082,465	$ 6,049,280	$ 5,016,094	$ 3,982,908	$ 2,949,723	$ 1,916,537	$ 363,369,986
42							
43	$ 56,392,321	$ 59,775,860	$ 63,362,412	$ 67,164,156	$ 71,194,006	$ 75,465,646	
44	$ -	$ -	$ -	$ -	$ -	$ -	
45	$ -	$ -	$ -	$ -	$ -	$ -	
46	$ 56,392,321	$ 59,775,860	$ 63,362,412	$ 67,164,156	$ 71,194,006	$ 75,465,646	
47	$ 6,767,953	$ 6,767,953	$ 6,767,953	$ 6,767,953	$ 6,767,953	$ 6,767,953	
48	$ 314,348	$ 314,348	$ 314,348	$ 314,348	$ 314,348	$ 314,348	
49	$ 63,474,622	$ 66,858,161	$ 70,444,713	$ 74,246,458	$ 78,276,307	$ 82,547,947	
50							
51	$ 70,557,087	$ 72,907,441	$ 75,460,807	$ 78,229,366	$ 81,226,030	$ 84,464,484	
52							
53							
54							
55							
56							
57	$ 8,540,429	$ 9,052,855	$ 9,596,026	$ 10,171,788	$ 10,782,095	$ 11,429,021	
58	$ 161,957	$ 171,675	$ 181,975	$ 192,894	$ 204,467	$ 216,735	
59	$ 8,702,387	$ 9,224,530	$ 9,778,002	$ 10,364,682	$ 10,986,563	$ 11,645,756	
60	$ 4,351,193	$ 4,612,265	$ 4,889,001	$ 5,182,341	$ 5,493,281	$ 5,822,878	
61							

Cell: D16
Comment: John Walters:
Insert $9.00 for Limestone Backhaul calculation

	A	B	C	D	E	F
1	Revenue Requirments Summary					
2	2009 Amended Plan - Offsite Gypsum Disposal					
3						
4	Project 30		Ghent Landfill Phase I			2009
5						
6	Revenue Requirement					
7	Eligible Plant					$ 4,321,671
8	Less Gypsum Plant					$ -
9	Revised Eligible Plant					$ 4,321,671
10	Less Accumulated Depreciation					
11	Less Deferred Tax Balance					
12	Environmental Compliance Rate Base					$ 4,321,671
13	Rate of Return					11.1%
14						$ 480,509
15						
16	Operating Expenses					$ 84,800
17	less Gypsum to On-site Landfill					
18	Gypsum to Sterling (800,000 tons)					
19	Net Operating					$ 84,800
20	Annual Depreciation					
21	Annual Property Tax Expense					
22	Total OE					$ 84,800
23						
24	Total E(m) Gypsum to Sterling					$ 565,309
25	Total E(m) Gypsum to On-site Landfill					$ 565,309
26						
27	Difference					$ -

	G	H	I	J	K	L	M	N
1								
2								
3								
4	2010	2011	2012	2013	2014	2015	2016	2017
5								
6								
7	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 203,254,220	$ 203,969,979
8	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
9	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 203,254,220	$ 203,969,979
10				$ (5,110,443)	$ (10,744,623)	$ (16,396,576)	$ (22,067,369)	$ (27,758,131)
11				$ (732,114)	$ (3,915,341)	$ (6,717,677)	$ (9,168,992)	$ (11,289,232)
12	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 185,291,361	$ 187,281,989	$ 179,464,723	$ 172,017,859	$ 164,922,616
13	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
14	$ 5,098,729	$ 11,571,793	$ 19,480,236	$ 20,326,462	$ 20,544,834	$ 19,687,280	$ 18,870,359	$ 18,092,011
15								
16	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244	$ 23,991,239
17				$ -	$ -	$ -	$ -	$ -
18				$ -	$ -	$ -	$ -	$ -
19	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244	$ 23,991,239
20				$ 5,110,443	$ 5,634,180	$ 5,651,953	$ 5,670,793	$ 5,690,762
21	$ 6,483	$ 69,718	$ 158,229	$ 266,366	$ 279,017	$ 286,798	$ 279,274	$ 271,751
22	$ 127,832	$ 198,348	$ 294,577	$ 24,380,117	$ 26,056,704	$ 27,290,868	$ 28,583,311	$ 29,953,752
23								
24	$ 5,226,561	$ 11,770,141	$ 19,774,813	$ 44,706,579	$ 46,601,539	$ 46,978,148	$ 47,453,670	$ 48,045,763
25	$ 5,226,225	$ 11,769,378	$ 19,773,528	$ 44,705,239	$ 46,600,208	$ 46,976,843	$ 47,458,553	$ 48,044,547
26								
27	$ 336	$ 763	$ 1,285	$ 1,340	$ 1,331	$ 1,305	$ (4,883)	$ 1,216

	O	P
1		
2		
3		
4	2018	
5		
6		
7	$ 203,969,979	
8	$ -	
9	$ 203,969,979	
10	$ (33,448,893)	
11	$ (13,098,586)	
12	$ 157,422,500	
13	10.97%	
14	$ 17,269,248	
15		
16	$ 25,430,713	
17	$ -	
18	$ -	
19	$ 25,430,713	
20	$ 5,690,762	
21	$ 264,317	
22	$ 31,385,792	
23		
24	$ 48,655,040	
25	$ 48,653,648	
26		
27	$ 1,392	$ 4,084

Kentucky Energy and Environment Cabinet
Department for Environmental Protection
Division of Waste Management

PERMIT

Facility:

Sterling Ventures LLC
100 Sierra Dr
Verona, KY 41092

Permittee:

Sterling Materials
376 South Broadway
Lexington, KY 40508

Agency Interest:

Sterling Ventures LLC
100 Sierra Dr
Verona, KY 41092

The Division has issued the permit under the provisions of KRS Chapter 224 and regulations promulgated pursuant thereto. This permitted activity or activities are subject to all conditions and operating limitations contained herein. Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses or approvals required by this Division or other state and local agencies.

No deviation from the plans and specifications submitted with your application or any condition specified herein is allowed, unless authorized in writing from the Division. Violation of the terms and conditions specified herein may render this permit null and void. All rights of inspection by representatives of the Division are reserved. Conformance with all applicable Waste Management Regulations is the responsibility of the permittee.

Agency Interest ID #: **1461**

Solid Waste Permit #: **SW00800023**

County: **Gallatin**

Permitted Activities:

Subject Item	Activity	Type	Status
ACTV001	Beneficial Reuse-Special Waste-RPBR/00800023	Registered Permit by Rule	Active

Permit Number: SW00800023 Agency Interest ID: 1461

PERMIT

First Operational Permit Effective Date: 11/19/2010

Permit Effective Date: 11/19/2010

Permit Expiration Date: Life of facility

Permit issued: 11/19/2010

R. D. Gruzesky

Ronald D. Gruzesky, P.E.
Manager, Solid Waste Branch

Permit Conditions:

Subject Items

ACTV0001 - Beneficial Reuse-Special Waste-RPBR

Standard Requirements:

1. General: The owner or operator of a special waste facility shall comply with KRS Chapter 224 and 401 KAR Chapters 30, 40 and 45 for the operation of special waste facilities. [KRS 224.50-760]

2. General: For operation of the special waste beneficial reuse that is not otherwise specified in 401 KAR 45:060, the owner or operator shall comply with KRS Chapter 224.50-760, 401 KAR 45:070 and the approved permit application(s). [401 KAR 45:070]

Variances, Alternate Specifications and Special Conditions:

1. Operation: The owner or operator is approved to beneficially reuse flue gas desulfurization gypsum produced by the KU Ghent Power Station in mined out sections of the Sterling Mine on the first level, in the Tyrone Limestone. [401 KAR 45:070 Section 3]

2. Operation: The owner or operator shall submit a revised registration prior to beneficially reusing sources or types of wastes other than FGD sludge from the KU Ghent power station, beneficially reusing FGD gypsum in areas other than the first level of the mine, changing the method of processing waste, adding new processes, changing the operator, or changing ownership. [401 KAR 45:070 Section 4]

PERMIT

3. Operation: The owner or operator shall comply with the Environmental Performance Standards of 401 KAR 30:031. [401 KAR 30:031]

4. Operation: The owner or operator is approved to beneficially reuse up to 800,000 tons per year of FGD gypsum. [401 KAR 45:070 Section 3]

5. Operation: The owner or operator shall ensure that no water, except that necessary for dust suppression, shall enter the beneficial reuse area. [401 KAR 45:140 Section 2]

6. Operation: The owner or operator shall ensure that the FGD gypsum is stored only in areas with no standing water. [401 KAR 45:140 Section 2]

County Sources - The owner or operator may accept waste as authorized by the cabinet pursuant to KRS 224 and/or 401 KAR Chapter 47 from the following counties:

Kentucky: Carroll

Approved Applications - The owner or operator shall comply with applicable statutes and regulations and the following approved applications:

1. 11-19-2010 - ARP20100001 - Registered Permit-by-Rule Beneficial Reuse

From: Wilson, Stuart(/O=LGE/OU=LOUISVILLE/CN=RECIPIENTS/CN=WILSONST)
To: Pfeiffer, Caryl
CC: Farhat, Monica; Schram, Chuck
BCC:
Subject: RE: Scrubber Stone RFQ
Sent: 03/27/2013 10:07:44 AM -0400 (EDT)
Attachments:

Caryl,

If you'd like us to take a look at the Sterling proposal, please forward it to us. We'd be happy to take a look at it.

Stuart

From: Schram, Chuck
Sent: Tuesday, March 26, 2013 6:11 PM
To: Pfeiffer, Caryl
Cc: Wilson, Stuart; Farhat, Monica
Subject: Fwd: Scrubber Stone RFQ

Caryl,
See Monica's attached email. Based on the new bid, we need to revisit the evaluation that we did last year.

Chuck

Sent from my iPhone

Begin forwarded message:

> **From:** "Farhat, Monica" <Monica.Farhat@lge-ku.com>
> **Date:** March 26, 2013, 3:37:54 PM EDT
> **To:** "Schram, Chuck" <Chuck.Schram@lge-ku.com>, "Wilson, Stuart" <Stuart.Wilson@lge-ku.com>
> **Subject: RE: Scrubber Stone RFQ**
>
> In late 2011, Sterling proposed the following:
>
> - $10.95/ton to haul and store gypsum
> - $6.5/ton to supply limestone
>
> Our analysis considered the proposal's impact to the station's CCP storage and limestone costs and ultimately concluded that the proposal was more costly than storing CCPs on-site and sourcing limestone from another supplier. We determined that Sterling's cost to transport gypsum would have to decrease from $10.95/ton to $8.75/ton to break-even with the Company's current plans for CCP storage and limestone supply (see attached for more details).
>
> In the new proposal, Sterling has decreased the gypsum hauling cost and increased their limestone cost. It appears that their limestone cost is slightly more expensive than the other bidders ($9.80/ton versus $9.50/ton). Since their gypsum hauling cost of $6.75/ton is less than the break-even cost that was previously determined, it's not obvious to us that we shouldn't consider this proposal more carefully.
>
> Thanks,
> Monica
>
> ---
>
> From: Wilson, Stuart
> Sent: Tuesday, March 26, 2013 11:35 AM
> To: Farhat, Monica
> Subject: FW: Scrubber Stone RFQ

Email from Carol…

From: Schram, Chuck
Sent: Tuesday, March 26, 2013 11:24 AM
To: Wilson, Stuart
Subject: FW: Scrubber Stone RFQ

fyi

From: Pfeiffer, Caryl
Sent: Monday, March 25, 2013 2:40 PM
To: Schram, Chuck
Subject: FW: Scrubber Stone RFQ

Walters/Sterling responded to our recent scrubber stone solicitation with the following proposal:
Limestone delivered into Ghent and Trimble County with the haul-back of gypsum (Ghent gypsum to the Sterling quarry and Trimble County gypsum to the Ghent landfill). All truck delivery (they estimate 20 hours/day). No bid for Mill Creek. No bid of limestone alone to any plant or combination of plants. They say they need to have a contract in place by June 30th.

Ghent: $9.80/ton of stone plus $6.75/ton for gypsum haul-back
Trimble County: $9.58/ton of stone plus $6.00/ton for gypsum haul-back

Our low bidders are proposing $7.00/ton of stone plus $2.50/ton barging cost (to Crounse) for delivery into Mill Creek, Trimble County and Ghent (if we carve out any plant(s) from their proposals, then they have the ability to come back and raise their price as part of their bid responses).

Thus, Sterling is not competitive on the stone to begin with and not only would we have to make modifications at each of the plants to accept delivery of stone by truck, but also we would have to pay for the haul-back of gypsum. I feel comfortable telling them they are not the low bidder, but I would like to repeat some of the verbiage we used earlier to tell them why they were not a viable disposal alternative for gypsum.

From: John Walters [mailto:johnwalters@sterlingventures.com]
Sent: Tuesday, March 19, 2013 11:07 AM
To: Gilbert, Bill G.; Pfeiffer, Caryl; Alex Boone; Dotson, Mike
Subject: Scrubber Stone RFQ

Bill
Could you give me an update on the normalization process in connection with the January 22, 2013 RFQ for scrubber limestone at Mill Creek, Trimble County and Ghent? I know that because our bid includes gypsum disposal, including the cost saving from delaying the construction of Phases 2 and 3 of the Ghent Landfill, and the most cost effective means of dealing with Trimble County CCPs, complicates the normalization process.
In addition, I assume there are cost consideration, both increases and decreases, from delivering limestone by truck verses barge. Several years ago, we began discussions with plant personnel at Ghent about the efficiencies of dedicating Ghent's barge load-out equipment to coal only, and building a hopper and conveyor on site to convey stone delivered by truck directly into your limestone inventory pile. We would be more than happy to meet with you and/or Ghent and Trimble County operations personnel to answer questions or discuss issues or concerns about truck delivery of limestone.
Again, we appreciate the opportunity to work with you both as a limestone source, and to develop options to lower the overall cost to you and your customers of land-filling CCPs.
John

John W. Walters, Jr.
Sterling Ventures, LLC
376 South Broadway
Lexington, KY 40508
Phone (859) 259-9600
Fax (859) 259-9601

johnwalters@sterlingventures.com

From: Wilson, Stuart(/O=LGE/OU=LOUISVILLE/CN=RECIPIENTS/CN=WILSONST)
To: Farhat, Monica
CC:
BCC:
Subject: RE: Scrubber Stone RFQ
Sent: 03/26/2013 03:25:53 PM -0400 (EDT)
Attachments:

See edits below… This is definitely more like what I had in mind. I added a bit more background. Also, I wanted to draw out the '$9.80 versus $9.50' comparison. Please make sure this makes sense and forward the email I sent you originally (from Carol) to Chuck with this summary (and attachment). Thanks.

Stuart

From: Farhat, Monica
Sent: Tuesday, March 26, 2013 3:03 PM
To: Wilson, Stuart
Subject: RE: Scrubber Stone RFQ

In late 2011, Sterling proposed the following:

- $10.95/ton to haul and store gypsum
- $6.5/ton to supply limestone

Our analysis considered the proposal's impact to the station's CCP storage and limestone costs and ultimately concluded that the proposal was more costly than storing CCPs on-site and sourcing limestone from another supplier. We determined that Sterling's cost to transport gypsum would have to decrease from $10.95/ton to $8.75/ton to break-even with the Company's current plans for CCP storage and limestone supply (see attached for more details).

In the new proposal, Sterling has decreased the gypsum hauling cost and increased their limestone cost. It appears that their limestone cost is slightly more expensive than the other bidders ($9.80/ton versus $9.50/ton). Since their gypsum hauling cost of $6.75/ton is less than the break-even cost that was previously determined, it's not obvious to us that we shouldn't consider this proposal more carefully.

From: Farhat, Monica
Sent: Tuesday, March 26, 2013 2:39 PM
To: Wilson, Stuart
Subject: RE: Scrubber Stone RFQ

In late 2011, Sterling Ventures submitted a proposal to store all gypsum from the Ghent Station (net of sales to CertainTeed) in its offsite storage facility for $10.95/wet ton. Additionally, Sterling proposed to backhaul high calcium limestone to the Ghent station for $6.50/ton.

Sterling Ventures claimed that by sending gypsum to their storage facility instead of the landfill, the Company can realize $53 million in capital savings by:

- deferring subsequent landfill phases
- avoid installing a dry gypsum handling system
- avoid completing the gypsum fines project
- avoid constructing a gypsum dewatering facility
- more savings could be possible by reverting to a CCR storage alternative from the 2009 ECR filing that included a smaller landfill located closer to the Ghent station

Our analysis considered the claims above and it was determined that in order to save the $53 million, Ghent will need to continue using the gypsum stack, which is not an option due to the costs and risks associated with operating the stack. The Company plans to retire the gypsum stack when the new landfill is in service and therefore will need to spend the capital on the dry gypsum handling system, gypsum fines project, and gypsum dewatering facility. In addition, selecting a different

landfill alternative at the Ghent station is not a viable option because this would require new environmental permits and delay the project by two years.

Our analysis determined that the cost to transport gypsum has to decrease from $10.95/wet ton to $7.5/wet to break-even with the Company's current landfill plan. However, the option to purchase limestone from Sterling Ventures at $6.5/ton was attractive enough that when combined with transporting gypsum increased the break-even cost to $8.75/ton which was still lower than their asking price.

Thanks,
Monica

From: Wilson, Stuart
Sent: Tuesday, March 26, 2013 11:35 AM
To: Farhat, Monica
Subject: FW: Scrubber Stone RFQ

Email from Carol…

From: Schram, Chuck
Sent: Tuesday, March 26, 2013 11:24 AM
To: Wilson, Stuart
Subject: FW: Scrubber Stone RFQ

fyi

From: Pfeiffer, Caryl
Sent: Monday, March 25, 2013 2:40 PM
To: Schram, Chuck
Subject: FW: Scrubber Stone RFQ

Walters/Sterling responded to our recent scrubber stone solicitation with the following proposal:
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Our low bidders are proposing $7.00/ton of stone plus $2.50/ton barging cost (to Crounse) for delivery into Mill Creek, Trimble County and Ghent (if we carve out any plant(s) from their proposals, then they have the ability to come back and raise their price as part of their bid responses).

Thus, Sterling is not competitive on the stone to begin with and not only would we have to make modifications at each of the plants to accept delivery of stone by truck, but also we would have to pay for the haul-back of gypsum. I feel comfortable telling them they are not the low bidder, but I would like to repeat some of the verbiage we used earlier to tell them why they were not a viable disposal alternative for gypsum.

From: John Walters [mailto:johnwalters@sterlingventures.com]
Sent: Tuesday, March 19, 2013 11:07 AM
To: Gilbert, Bill G.; Pfeiffer, Caryl; Alex Boone; Dotson, Mike
Subject: Scrubber Stone RFQ

Bill
Could you give me an update on the normalization process in connection with the January 22, 2013 RFQ for scrubber limestone

at Mill Creek, Trimble County and Ghent? I know that because our bid includes gypsum disposal, including the cost saving from delaying the construction of Phases 2 and 3 of the Ghent Landfill, and the most cost effective means of dealing with Trimble County CCPs, complicates the normalization process.

In addition, I assume there are cost consideration, both increases and decreases, from delivering limestone by truck verses barge. Several years ago, we began discussions with plant personnel at Ghent about the efficiencies of dedicating Ghent's barge load-out equipment to coal only, and building a hopper and conveyor on site to convey stone delivered by truck directly into your limestone inventory pile. We would be more than happy to meet with you and/or Ghent and Trimble County operations personnel to answer questions or discuss issues or concerns about truck delivery of limestone.

Again, we appreciate the opportunity to work with you both as a limestone source, and to develop options to lower the overall cost to you and your customers of land-filling CCPs.

John

John W. Walters, Jr.
Sterling Ventures, LLC
376 South Broadway
Lexington, KY 40508
Phone (859) 259-9600
Fax (859) 259-9601

johnwalters@sterlingventures.com

From: Wilson, Stuart(/O=LGE/OU=LOUISVILLE/CN=RECIPIENTS/CN=WILSONST)
To: Farhat, Monica
CC:
BCC:
Subject: Fw: Sterling Ventures Gypsum Proposal
Sent: 01/20/2012 04:46:10 PM -0500 (EST)
Attachments: Exhibit 1.pdf - 147 KB; Exhibit 2.pdf - 319 KB; Exhibit 3.pdf - 319 KB; Exhibit 4.pdf - 186 KB;

Fyi... We need to think about a response to this gentleman's email.

Stuart

From: Schram, Chuck
Sent: Friday, January 20, 2012 04:42 PM
To: Wilson, Stuart
Subject: Fw: Sterling Ventures Gypsum Proposal

From: Joyce, Jeff
Sent: Friday, January 20, 2012 03:18 PM
To: Schram, Chuck
Subject: FW: Sterling Ventures Gypsum Proposal

From: John Walters [mailto:johnwalters@sterlingventures.com]
Sent: Thursday, January 19, 2012 2:49 PM
To: Joyce, Jeff; Pfeiffer, Caryl
Cc: Alex Boone
Subject: Sterling Ventures Gypsum Proposal

Jeff

I understand from Scott Straight that you are now in charge of doing the PVRR comparative analysis of Sterling's proposal to use the new landfill at Ghent for ash only, with gypsum disposal at our underground mine. Attached is our effort at a PVRR comparative analysis of all gypsum going to Sterling, verses into your new landfill. We based our comparative PVRR analysis on the projected O&M and capital cost for the landfill that KU filed with the PSC in 2009, and confirmed in 2011.

Attached Exhibit 1 is a general summary of our proposal, as well as the assumptions used in the PVRR analysis of that proposal. Exhibits 2 and 3 are PVRR analyses under two separate scenarios. The first, Exhibit 2, is a straight PVRR comparison to the landfill, as detailed in the 2009 filings with the PSC, versus using our underground limestone mine for gypsum beneficial reuse disposal. In this scenario, our proposal is the least cost alternative by $260,498,235.00 (PVRR least cost alternative by $86,599,008.00).

Exhibit 3 is a PVRR comparison assuming KU purchases scrubber limestone from Sterling, which is then backhauled to Ghent. Here, our proposal is the least cost alternative by $342,795,003.00 (PVRR least cost alternative by $109,405,671.00). In both PVRR analyses, $222,368,117.00 of the saving comes from a reduction in Return on Equity from reduced capital costs. As you will see, Exhibit 3 assumes a delivered scrubber stone price of $8.50 ($7.00 stone with $1.50 trucking allocation out of the $4.50 round trip gypsum trucking), which based on documents filed with the PSC, should approximate the delivered cost of scrubber stone from Mulzer.

Exhibit 4 is the PVRR comparative analysis from Exhibits 2 and 3 in the table format that Charles Schram identified that you would use in your PVRR analysis of beneficial reuse opportunities.

I also understand from documents KU filed with the PSC that the landfill's CCP transport system cost may be significantly over the original projection, and that the projected capital cost of Phase I has increased from $204,000,000 to $283,000,000. Please note that the increase in the cost of Phase I has not been included in our PVRR analysis, and therefore the savings from our proposal may increase as a result of the additional capital required for Phase I.

As you can see from our projections, in addition to O&M cost savings, you can delay Phase II of the Ghent Landfill project by eleven years, and completely eliminate Phase III. You can also avoid purchasing gypsum handling equipment. However, these savings assume that all gypsum is beneficially reused at Sterling's underground mine starting with the opening of Phase I in 2013.

In Scott Straight's email to me indicating that you are now in charge of the PVRR comparative analysis, he stated that Sterling's proposal "could have merit in a few years to defer the next phased expansion of the landfill", but that "[t]he next phase of the landfill is years away…." I must admit that I am confused by Scott's conclusion. It would appear that if the ability to avoid placing gypsum in the Ghent landfill "could have merit in a few years," it also possibly has merit today. Our permit for your gypsum is approved and in place.

As indicated above, failing to take advantage of the Sterling opportunity in 2013 when the landfill opens would result in the unnecessary purchase of gypsum related equipment, and the placement of approximately 850,000 cubic yards per year of gypsum into the landfill, thereby reducing its life. The projected savings from our proposal between 2012 and 2019 (the projected opening of Phase II) is $41,900,000.00, without backhauling limestone, and $54,941,000.00 if you take advantage of the limestone backhaul option.

If you anticipate opening the landfill in 2013, planning needs to begin immediately if you are going to take advantage of our beneficial reuse opportunity. We need to address numerous details and logistics, as well as negotiate a contract. In addition, as indicated above, the greatest saving potential for you occurs when you purchase hi-calcium scrubber limestone from Sterling. My understanding from documents filed with the PSC, the existing contract with Mulzer Crushed Stone for Ghent's scrubber limestone is a 9-year contract ending late 2014, with an "opt-out" provision in 2012. I also understand KU's normal practice is to enter into long terms contracts for scrubber stone. If you want to take full advantage of the potential savings, we would also need to negotiate a contract for limestone.

There are obviously numerous details we need to discuss in order for you to complete your own PVRR analysis of our proposal. Could you please let me know within the next couple of days if you are planning to do your PVRR analysis now, or as Scott indicated, you will be delaying that analysis for a few years?

Thank you for your consideration. I look forward to hearing from you.

John

John W. Walters, Jr.
Sterling Ventures, LLC
376 South Broadway
Lexington, KY 40508
Phone (859) 259-9600
Cell (859) 621-3990
Fax (859) 259-9601

johnwalters@sterlingventures.com

From: Wilson, Stuart(/O=LGE/OU=LOUISVILLE/CN=RECIPIENTS/CN=WILSONST)
To: Schram, Chuck
CC:
BCC:
Subject: FW: Ghent Landfill Beneficial Reuse Opportunity
Sent: 12/12/2011 03:17:02 PM -0500 (EST)
Attachments:

From: Farhat, Monica
Sent: Monday, December 12, 2011 10:31 AM
To: Wilson, Stuart
Subject: RE: Ghent Landfill Beneficial Reuse Opportunity

Stuart,

Yes I have looked at this project back in August 2010 and it was a viable project and more cost effective than an offsite landfill. In summary to maintain minimum capacity levels in the gypsum stack and before the new landfill is available in January 2013, 82k tons had to be either disposed of in 2011-2012 in an offsite landfill or used by Sterling Ventures as structural fill. Sterling Ventures was ~$1.7M lower PVRR compared to the offsite landfill option. Please let me know if you need more details.

Thanks,
Monica

From: Wilson, Stuart
Sent: Monday, December 12, 2011 7:13 AM
To: Farhat, Monica
Subject: Fw: Ghent Landfill Beneficial Reuse Opportunity

Monica,

Please see Chuck's email. Any thoughts?

Stuart

From: Schram, Chuck
Sent: Monday, December 12, 2011 07:00 AM
To: Wilson, Stuart
Subject: FW: Ghent Landfill Beneficial Reuse Opportunity

Are you aware of this one?

From: John Walters [mailto:johnwalters@sterlingventures.com]
Sent: Saturday, December 10, 2011 5:15 PM
To: Schram, Chuck
Subject: Fwd: Ghent Landfill Beneficial Reuse Opportunity

---------- Forwarded message ----------
From: **John Walters** <johnwalters@sterlingventures.com>
Date: Sat, Dec 10, 2011 at 5:06 PM
Subject: Ghent Landfill Beneficial Reuse Opportunity
To: jeff.heun@lge-ku.com

Cc: Scott Straight <scott.straight@lge-ku.com>, Caryl Pfeiffer <caryl.pfeiffer@lge-ku.com>, john.voyles@lge-ku.com, charles.schram@lge-ku.com, Jeff Joyce <jeff.joyce@lge-ku.com>

Jeff

I understand from Scott Straight that you are evaluating the comparative PVRR cost projections for the beneficial reuse of Ghent's gypsum at Sterling Ventures' underground limestone mine. I am continuing to make minor adjustments to the comparative projections as we learn more information. Attached is the latest PVRR cost comparison.

In PSC Case No. 2009-00197, Charles Schram submitted, as part of his testimony, the PVRR analysis table that the Company would use to evaluate new beneficial reuse opportunities that could minimize disposal cost by delaying or eliminating construction of future phases. I have added three worksheets (KU PVRR Project 30, PVRR SV Option1 and PVRR SV Option2) to the attached excel file. Those worksheets (also attached as pdfs) convert my original PVRR comparison worksheet to the format that Mr. Schram indicated would be used in this situation. I apologize for not providing the beneficial reuse savings projections in this format earlier.

As I have indicated in prior emails, the comparative PVRR projections are based on certain assumptions about the timing of the remaining $160 million construction costs of Phases 2 and 3 of the landfill. I have based my capital cost timing assumptions, and the O&M costs, on the retirement studies analysis in KU's recent Environmental Surcharge case. We would welcome the opportunity to meet with you about refining, correcting and updating the construction timing and cost assumptions in the attached.

I am also attaching, for your review, the Form 7059 for that we filed in July 2010, and a copy of the resulting Beneficial Reuse Special Waste Permit for Ghent's gypsum the we received in November, 2010.

Hopefully, our existing Beneficial Reuse Permit can provide a timely alternative that can delay or eliminate near and long term landfill construction costs and equipment purchases at Ghent, and result in significant savings for KU and its' customers.

Could you possibly confirm receipt of this email, and also let me know when you believe your preliminary analysis will be completed?

I look forward to hearing from you.

John Walters

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From: Wilson, Stuart(/O=LGE/OU=LOUISVILLE/CN=RECIPIENTS/CN=WILSONST)
To: Farhat, Monica
CC:
BCC:
Subject: Fw: Ghent Landfill Beneficial Reuse Opportunity
Sent: 12/12/2011 07:12:38 AM -0500 (EST)
Attachments: Ghent PVRR 12-7-11.xlsx - 117 KB; Ghent Project 30 PVRR Table SV Option2.pdf - 85 KB; Ghent Project 30 PVRR Table SV Option1.pdf - 80 KB; Ghent Project 30 PVRR Table.pdf - 76 KB; Sterling Ventures Permit 11-19-2010.pdf - 84 KB; Form 7056.pdf - 1 MB;

Monica,

Please see Chuck's email. Any thoughts?

Stuart

From: Schram, Chuck
Sent: Monday, December 12, 2011 07:00 AM
To: Wilson, Stuart
Subject: FW: Ghent Landfill Beneficial Reuse Opportunity

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From: John Walters [mailto:johnwalters@sterlingventures.com]
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To: Schram, Chuck
Subject: Fwd: Ghent Landfill Beneficial Reuse Opportunity

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From: **John Walters** <johnwalters@sterlingventures.com>
Date: Sat, Dec 10, 2011 at 5:06 PM
Subject: Ghent Landfill Beneficial Reuse Opportunity
To: jeff.heun@lge-ku.com
Cc: Scott Straight <scott.straight@lge-ku.com>, Caryl Pfeiffer <caryl.pfeiffer@lge-ku.com>, john.voyles@lge-ku.com, charles.schram@lge-ku.com, Jeff Joyce <jeff.joyce@lge-ku.com>

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Could you possibly confirm receipt of this email, and also let me know when you believe your preliminary analysis will be completed?

I look forward to hearing from you.

John Walters

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johnwalters@sterlingventures.com
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From: Wilson, Stuart(/O=LGE/OU=LOUISVILLE/CN=RECIPIENTS/CN=WILSONST)
To: Schram, Chuck
CC:
BCC:
Subject: Re: Ghent Landfill Beneficial Reuse Opportunity
Sent: 12/12/2011 07:11:39 AM -0500 (EST)
Attachments:

I don't think so. Monica's been contacted about a couple things but no analysis has been done. I'll follow up with Monica.

Stuart

From: Schram, Chuck
Sent: Monday, December 12, 2011 07:00 AM
To: Wilson, Stuart
Subject: FW: Ghent Landfill Beneficial Reuse Opportunity

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From: John Walters [mailto:johnwalters@sterlingventures.com]
Sent: Saturday, December 10, 2011 5:15 PM
To: Schram, Chuck
Subject: Fwd: Ghent Landfill Beneficial Reuse Opportunity

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Date: Sat, Dec 10, 2011 at 5:06 PM
Subject: Ghent Landfill Beneficial Reuse Opportunity
To: jeff.heun@lge-ku.com
Cc: Scott Straight <scott.straight@lge-ku.com>, Caryl Pfeiffer <caryl.pfeiffer@lge-ku.com>, john.voyles@lge-ku.com, charles.schram@lge-ku.com, Jeff Joyce <jeff.joyce@lge-ku.com>

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John Walters

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From: Tapp Sr., Kenny (Electric)(/O=LGE/OU=LOUISVILLE/CN=RECIPIENTS/CN=WEB/CN=TAPPK)
To: Bowling, Ralph; Voyles, John; Schram, Chuck
CC:
BCC:
Subject: Sterling Venture proposals and pertinent e-mails
Sent: 03/05/2012 12:05:33 PM -0500 (EST)
Attachments: Ghent.msg; Gypsum Disposal.msg; Ghent Gyspum Disposal.msg; RE_ Ghent Gyspum Disposal.msg;

<<Ghent>> <<Gypsum Disposal>> <<Ghent Gyspum Disposal>> <<RE: Ghent Gyspum Disposal>>

Kenny Tapp

LG&E and KU Services Company
220 West Main Street
Louisville, KY 40202
502-627-3154 Office
502-627-3243 Fax
502-648-4374 Mobile

From: John Walters(johnwalters@sterlingventures.com)
To: Smith, Timothy (Fuels); Joyce, Jeff; Pfeiffer, Caryl; Tapp Sr., Kenny (Electric); Gilbert, Bill G.; Dotson, Mike; Puckett, Paul
CC: Alex Boone
BCC:
Subject: Ghent Gyspum Disposal
Sent: 09/13/2011 05:15:04 PM -0400 (EDT)
Attachments: LGE - KU Sterling Materials.pdf;

Please see attached

John W. Walters, Jr.
Sterling Ventures, LLC
376 South Broadway
Lexington, KY 40508
Phone (859) 259-9600
Cell 859-621-3990
Fax (859) 259-9601
johnwalters@sterlingventures.com

STERLING
VENTURES

September 13, 2011

Mr. Jeff Joyce
Mr. Timothy Smith
LG&E and KU-Ghent Station
9485 HWY 42 East
Ghent, KY 41045

Ms. Caryl Pfeiffer VIA E-mail
Mr. Kenny Tapp
Mr. Mike Dotson
Mr. Bill Gilbert
Mr. Paul Puckett
LG&E and KU
220 West Main Street
P.O. Box 32010
Louisville, KY 40202

Re: FGD Gypsum Disposal - Ghent Generating Station

Dear Ms. Pfeiffer and Gentlemen:

We have recently met with Tim Smith at Ghent Station to renew discussions concerning the possibility of Sterling Materials disposing of excess FGD Gypsum from the gypsum stacking facility at the Ghent Generating Station. We were unable to reach an agreement last year on gypsum disposal, presumably based on our proposed pricing.

Our pricing was in part based upon a requirement for a minimum tonnage of gypsum in order to cover the cost of Sterling having to install a gypsum access shaft to access our underground mine. The gypsum access shaft is preferable to trucking the gypsum underground, which we considered cost prohibitive. We proposed to Tim that if Ghent was interested in paying for the cost of the gypsum access shaft (which we estimated to be approximately $650,000) we would be willing to enter into an agreement that would give Ghent the right to dispose of its stacking pond gypsum in Sterling's mine. LGE/KU would be responsible for all loading and trucking fees. Sterling's charge in this scenario would be $5.50 per ton, subject to the terms of a final agreement. The $5.50 would be reduced by $1.00 for a period of 18 months in order to encourage early gypsum disposal, and allow you to recoup the cost of the gypsum access shaft.

As we discussed last year, Sterling is interested in not only handling the initial 1,500,000 tons of gypsum from the stacking facility, but also in receiving 100% of Ghent's excess FGD

gypsum for the life of the power plant. Attached is a comparative analysis of the PVRR cost difference between your current plan of placing all CCP's in a new landfill, and placing all gypsum at Sterling, with only ash going into your new landfill. The attached comparative analysis is based upon the capital construction cost and O&M cost you provided to the Kentucky Public Service Commission. Our attached analysis indicates that disposal of gypsum at Sterling could be the least cost PVRR alternative by at least $79,000,000, and possibly over $100,000,000 if scrubber limestone is purchased from Sterling and backhauled to the plant.

Obviously, we have necessarily made some assumptions in the attached comparative analysis, and we would like to meet with you again to discuss our analysis and assumptions, and to answer any questions you may have. We believe there are significant savings to you and your customers as reflected in the attached.

In addition, as we have previously discussed, we also have an underground limestone mine in Jessamine County near E.W. Brown. We met last week with Ron Gruzesky at The Kentucky Division of Solid Waste, and, based on that meeting, are planning to submit an application to permit our Jessamine County mine as a special waste landfill to receive all CCPs. Hopefully, there is the possibility of significant savings to you at Brown as well.

When you have a chance, give me or John Walters a call and we can discuss the above, and plan and how to move forward.

Sincerely,

Samuel A.B. Boone

GHENT STATION ALTERNATIVE FOR CCP/GYPSUM DISPOSAL

Background

Sterling Materials is an active underground limestone mine located in Verona, Kentucky, approximately 20 miles from Kentucky Utilities Company's Ghent Station. Sterling currently mines between 1,000,000 and 1,600,000 tons of limestone per year, and has been in operation since 2000.

In addition to producing limestone for the general aggregate construction market, Sterling also mines high calcium limestone for Mississippi Lime Company for use in Mississippi Lime's kiln located on Sterling's property. This high calcium limestone is also suitable for use as scrubber stone in Ghent's limestone FGD scrubber system.

In November 2010, Sterling obtained a Special Waste Permit from the Kentucky Department of Environmental Protection, Division of Waste Management allowing disposal of FGD gypsum in Sterling's mine.

KU has proposed building a new landfill at Ghent in three phases for an estimated total cost of $360,000,000 to handle the plant's three coal combustion by-products ("CCPs") through 2037[1]. KU forecasted the following wet storage CCP production volumes for Ghent Station (Cubic Yards):

Year	Fly Ash	Bottom Ash	Gypsum
2009	540,000	140,000	880,000
2010	550,000	150,000	1,090,000
2011	580,000	150,000	1,120,000
2012	550,000	150,000	1,060,000
2013	550,000	150,000	1,090,000

Source: Coal Combustion Byproduct Plan for Ghent Station dated June 2009 (the "Ghent CCP Plan" attached as Exhibit A)

Ghent's FGD gypsum is currently placed in a wet gypsum stacking pond. Ghent also has a contract to supply CertainTeed, Inc. with gypsum, and KU has estimated that CertainTeed will purchase approximately 222,000 cubic yards per year of gypsum from Ghent. As a result, Ghent will be required to continue diverting a portion of its gypsum production to the gypsum stacking pond.

The Ghent CCP Plan outlines KU's comparative analysis of the various alternatives to reach the least cost PVRR of disposing of Ghent's CCPs. One of the alternatives considered was off-site disposal at Valley View Landfill near Sulfer, Kentucky, approximately 25 miles from Ghent Station.[2] Disposal at Valley View was however dismissed because of the high cost of loading, hauling and landfill tipping fees.[3] Although, KU has redacted from public view the cost associated with the Valley View disposal alternative, based on

[1] Phase I cost thru 2018 of $203,969,979 as set forth in Revenue Requirement Summary for Project 30 – Ghent Landfill Phase I attached as Exhibit B. Total project capital cost estimated to be $360,000,000 per direct testimony of John Voyles before the Kentucky Public Service Commission in Case No. 2009-00197 attached as Exhibit C.
[2] Ghent CCP Plan, footnote 14, page 10.
[3] Supra at page 19.

other information contained in information provided to the KY PSC, it is estimated that the projected cost for disposal at Valley View in 2009 was approximately $29.65 per ton.[4]

Alternative Proposal for Gypsum Disposal at Sterling Materials' Mine

Sterling Materials is proposing that Ghent send all of its gypsum production (net of sales CertainTeed) to Sterling mine for disposal, with Ghent's ash being disposed of in either the new landfill as proposed on Site E/F, or in a new landfill located at Site M as considered by Case 14/28 in the Ghent CCP Plan (See page 18-19). Sterling estimates that the PVRR cost of this alternative is at least $79,000,000 less than KU's proposal for a new landfill at Site E/F, as set forth in Exhibit D.

Assumptions in Exhibit D analysis

1. Total price for loading, hauling and fees to Sterling Materials of $10.95 in 2013.
2. Net CCP production of approximately 868,000 cubic yards (1,090,000 – 222,000 to CertainTeed).
3. Cubic yards to ton conversion factor – cy x 1.155 (based on Trans Ash conversion assumption of 1.3 MCY equals 1.5 million tons as hauled - see page 10 of Ghent CCP Plan).
4. Reduce Phase I construction cost by $53,110,000[5] by continuing to place gypsum temporarily in existing gypsum stacking pond until shipment to Sterling.
   - Dry Gypsum Handling System $36,800,000
   - Gypsum Fines Project $12,600,000
   - Gypsum Dewatering Facility Earthwork $ 3,710,000
5. Phase III landfill construction cost eliminated. Phase II construction delayed from 2018 to 2030.
   - Phase I capacity – 14.7 MCY (See Ghent CCP Plan page 12)
   - Ash Production – 700,000 MCY (See Ghent CCP Plan page 7)
   - Phase I life until full – 21 years
6. Total Phase II and III construction costs - $156,030,021 (see Footnote 1)
   - Phase II construction cost - $80,000,000
   - Phase III construction cost - $76,030,021
7. Eliminate following Ghent Landfill Operating Expenses (See Ghent Landfill Operating Expenses - Phase I attached as Exhibit F)
   - Dry Gypsum Handling System
   - Hauling Gypsum to Landfill
     - Loading
     - Phase I-2.25 mile round trip
     - Landfilling Gypsum
8. Continue 2018 Annual Depreciation Rate of 2.7899% on Eligible Capital through 2037
9. Continue 2018 Property Tax Expense Rate of .1259% on Eligible Capital through 2037
10. Apply KU O&M Escalation Rate of 6% (See Ghent CCP Plan page 22)

[4] Total beneficial reuse cost of approximately $8,900,000 for 1,500,000 tons of Gypsum to Trans Ash, Inc. equals $5.93/ton (See Comprehensive Strategy for Management of Coal Combustion Byproducts – June 2009), which is almost 80% less than per unit volume basis than disposal at Valley View. (Ghent CCP Plan at pages 18 and 20).
[5] See Ghent Landfill Capital Expenditures Phase I attached as Exhibit E.

Purchase of Scrubber Stone from Sterling

Sterling Materials mines a high calcium seam of limestone in its 2nd and 3rd levels that will meet, and possibly exceed, Ghent's calcium specifications for scrubber stone. Based on general industry knowledge, without verification, it is believed that Ghent's current cost of scrubber stone FOB plant is approximately $8.00.

The proposed price of 10.50 for gypsum disposal at Sterling includes $4.50 per ton for transportation, based upon an assumed round trip turn of 1.5 hours, and $75.00 per hour to haul 25 tons.

Sterling is proposing to sell high calcium limestone to Ghent for $6.50 per ton and backhauling the stone to Ghent. If a $1.50 per ton trucking fee is assigned to the transportation of the limestone, Ghent will incur no additional cost for it scrubber stone. However, reducing the transportation component of the gypsum disposal cost by $1.50 reduces the proposed disposal cost from $10.50 to $9.00 per ton, and correspondingly increases the PVRR saving advantage from approximately $79,000,000 to over $100,000,000. (See Exhibit G).

Construct Ash Storage Pond at Site M

Although KU has redacted from public view information provided to the Kentucky PSC on the cost associated with an ash landfill on Site M, it would generally appear that using Site M as an ash landfill verses Site E/F would substantially reduce ash disposal cost and further increase the PVRR saving from disposing all of Ghent's gypsum at Sterling.

Site M is substantially closer to Ghent than Site E/F (Ghent CCP Plan page 12 and Exhibit H). The estimated cost of hauling fly and bottom ash to Site E/F is $2,822,723 in 2013, and the corresponding haul Road maintenance cost is $53,529. Even reducing those costs by a modest 50% for the haul to Site M verses site E/F would produce another $21,800,000 in PVRR savings compared to CCP disposal at Ghent under Project 30.

EXHIBIT A

Coal Combustion Byproduct Plan for Ghent Station For

e·on | U.S.

Subsidiaries Kentucky Utilities and Louisville Gas and Electric

June 2009

CONFIDENTIAL INFORMATION REDACTED

1. Executive Summary

Kentucky Utilities Company's ("KU") Ghent station ("Ghent") produces three primary coal combustion byproducts ("CCP"): bottom ash, fly ash and gypsum, which are currently stored in two ash treatment basins and two gypsum stacking areas. These storage areas are expected to reach full capacity in 2012, creating a need for additional CCP management solutions.

A variety of on-site and off-site options were considered to meet CCP management needs at Ghent. The most effective solutions were identified through a needs analysis and economic analysis based on engineering cost estimates.

To address the pre-2013 need for gypsum storage capacity, an opportunity to remove a quantity of gypsum to be beneficially reused as structural fill was identified. This reuse option is significantly lower cost than transporting CCP to an off-site landfill, which is the other short-term option.

For longer-term CCP storage needs, KU contracted an engineering consultant to develop potential on-site storage alternatives. Of multiple options considered, four options were selected for further economic evaluation. Based on cost estimates and qualitative factors for these alternatives, the most favorable option is a single on-site landfill to store both ash and gypsum.

The most cost effective and environmentally sound CCP management options for Ghent are:

- a proposal for beneficial reuse of 1.3 million cubic yards ("MCY") of CCP (approximately 75% of annual CCP production) by Trans Ash, Inc. in 2010-2012 (Present value of revenue requirement ("PVRR") of [redacted] million or [redacted] per cubic yard), and
- the construction of a new on-site landfill system to store both ash and gypsum production for 25 years to be in-service by 2013 (PVRR of [redacted] million or [redacted] per cubic yard).

In addition, KU will continue to pursue other beneficial reuse opportunities that result in lower disposal costs.

CONFIDENTIAL INFORMATION REDACTED

2. Background

Kentucky Utilities Company's ("KU's") Ghent generating station ("Ghent") is located in Carroll and Gallatin Counties, Kentucky and is comprised of four coal-fired generating units for a total net station capacity of over 1,900 MW. The station produces three primary coal combustion byproducts ("CCP"): bottom ash, fly ash and gypsum. The Ghent station has four existing on-site storage facilities for CCP as follows:

- Ash Treatment Basin ("ATB") #1
- ATB #2
- North Gypsum Stack
- South Gypsum Stack

The ATBs are used to store bottom ash and fly ash which are byproducts of burning coal. ATB #1 is at maximum capacity[1] and ATB #2 is nearing maximum desired capacity. As of February 2009[2], ATB #2 can hold approximately an additional 2.5 MCY of ash. Ghent is forecast to produce approximately 0.7 MCY of ash annually, thus depleting the capacity in ATB #2 in 2012.[3]

Gypsum is produced by Ghent's flue gas desulfurization ("FGD") systems, which use limestone reagent to remove sulfur dioxide from flue gas. Until an additional repository can be developed, Ghent's gypsum is stacked on site. Based on the plant's expected generation, the existing capacity of the north and south gypsum stacks (collectively the "gypsum stack") is expected to be exhausted in 2012.[4]

Some gypsum is currently sold to a third party for beneficial reuse.[5] CertainTeed, Inc. ("CertainTeed") currently pays KU [redacted] per cubic yard for gypsum to be used as a raw material in the production of wallboard. This contract began in 1999 and runs through 2024. CertainTeed does not have minimum or maximum volume obligations, but their expected annual volume is approximately 222,000 cubic yards of gypsum (approximately 20% of annual gypsum production) based on recent utilization data.[6]

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[1] ATB #1 is not relevant to this analysis as it is not currently receiving any CCP, although it is available for emergency use.

[2] A bathymetric survey of ATB #2 was conducted by HDR/Quest/Rudy for GAI Consultants in February 2009.

[3] The available capacity of ATB #2 at the end of June 2009 is forecasted to be approximately 2.3 MCY.

[4] The available capacity of the gypsum stack at the end of June 2009 is forecasted to be approximately 2.6 MCY.

[5] KU identifies economically and environmentally favorable options to beneficially reuse CCP, consistent with KU's Comprehensive Strategy for Management of CCP shown in Exhibit JNV-3.

[6] Gypsum sales to CertainTeed were 263,000 tons in 2007, 375,000 tons in 2008, and 103,000 tons year-to-date through May 2009. However, their purchases decreased late in 2008 and year-to-date in 2009 as the economy slowed.

3. Process and Methodology

KU and Louisville Gas and Electric Company (collectively "the Companies") develop the most effective plan for meeting the CCP storage needs at each generating station. The process of identifying the plan consists of the three following primary tasks which are performed by several departments within the Companies.

- Needs assessment
- Development of alternatives
- Comparison of alternatives

The CCP storage needs are defined by forecasting the production of CCP over the applicable planning period as compared to the existing storage capacity. The Project Engineering department and the applicable generating station are responsible for providing an estimate of remaining capacity.

The expected life of the existing storage capacity is based on the forecast of CCP production, which is developed by Generation Planning for all stations as a function of the expected coal usage for each unit. The Companies compile information regarding the cost of generation for each unit (fuel, variable O&M, emission costs, etc.), a description of the generation capabilities of each unit (capacity, heat rate curve, commitment parameters, emission rates, availability schedules, etc.), a load forecast, the market price of electricity, and the volumetric ability (transfer capability) to access the market. All of this information is brought together in the PROSYM™[7] software, which is used to model the economic operation of the Companies' generating system. The projected coal usage data provided by this model is checked for reasonableness by comparing the results to historical data.

The Project Engineering department develops alternatives for on-site CCP storage solutions and their associated costs. Any alternatives for off-site disposal such as beneficial reuse or off-site landfill disposal are provided by the generating stations' staff and a CCP team focused on exploring alternatives for byproduct storage. The cash flows for selected options are summarized and provided to Generation Planning for evaluation.

The Generation Planning department evaluates the storage and disposal options received from Project Engineering to determine the present value of revenue requirements ("PVRR") associated with the capital expenditures and O&M expenses of each option. This analysis is performed using the Capital Expenditure Recovery module of the Strategist®[8] software model.

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[7] The PROSYM™ model has formed the foundation of prior analyses involving certificates of convenience and necessity for new generating plants, environmental cost recovery for pollution control equipment, and the fuel adjustment clause.

[8] Strategist® is a proprietary, state-of-the-art resource planning computer model. The Capital Expenditure Recovery module is used to quantify the revenue requirements impact associated with capital projects.

4. Needs Assessment

The following capacities were provided by Project Engineering and the Ghent station:

- ATB #1 is at capacity and is available for emergency use only.
- As of February 2009, the remaining available capacity of ATB #2 is 2.5 million cubic yards.[9]
- The remaining available capacity of the gypsum stacks is estimated to be 2.9 MCY as of January 2009.[10]

The expected life of the remaining capacity of the ATB #2 and the Gypsum Stack were estimated by forecasting the CCP production of ash and gypsum at Ghent. The quantity of ash produced at Ghent is estimated at a coal specification of 11.5% ash by weight of the total quantity of coal used, or approximately 11.5 tons of ash per 100 tons of coal. Converting to volumetric measurement, assuming ash production consists of 80% fly ash and 20% bottom ash by weight, approximately 11.5 cubic yards of total ash is produced per 100 tons of coal.[11]

The chemical reaction by which gypsum is produced results in a net gypsum production of approximately 18% by weight of the total quantity of coal used,[12] or approximately 18 tons of gypsum per 100 tons of coal. Converting to volumetric measurement for the gypsum stack, approximately 17.8 cubic yards of gypsum is produced per 100 tons of coal.

The forecasted CCP production volume for Ghent is shown in Table 1 and depicted graphically in Figure 1 and Figure 2, based on the forecasted coal burn shown in Table 2. Table 2 also contains the historical quantities of coal burned as a comparison to the forecast. The increase in coal burn during the 2010-2013 period is due to the completion of the FGD installations at Ghent in 2009, which required prior scheduled outages on each of the Ghent units during 2007-2009. Also, with the addition of the FGDs, Ghent has lower fuel costs, resulting in higher forecasted generation.

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[9] Based on expected coal burn, Generation Planning forecasts that by the end of 2009, the remaining capacity of ATB #2 will be 1.9 MCY.

[10] Based on expected coal burn and existing beneficial reuse, Generation Planning forecasts that by the end of 2009, the remaining capacity of the gypsum stacks will be 2.2 MCY.

[11] Density assumptions for wet storage are 0.945 tons per cubic yard for bottom ash and 1.0125 tons per cubic yard for both fly ash and gypsum.

[12] Fuel specification assumptions include SO_2 content of approximately 5.9 lb/mmBTU and heat content of 22.16 mmBTU/ton.

Table 1: CCP Production Forecast (MCY)

CCP Production Forecast *(MCY – wet storage)*			
	Fly Ash	**Bottom Ash**	**Gypsum**
2009	0.54	0.14	0.88
2010	0.55	0.15	1.09
2011	0.58	0.15	1.12
2012	0.55	0.15	1.06
2013	0.55	0.15	1.09

Table 2: Ghent Coal Usage (Million Tons)

Ghent Coal Usage *(M Tons)*	
Historical	
2004	5.4
2005	5.6
2006	5.6
2007	5.3
2008	5.7
Forecast	
2009	5.6
2010	6.0
2011	6.3
2012	6.1
2013	6.1

The forecasted generation and the resulting coal usage at Ghent correspond to an average capacity factor of approximately 77%. This relatively high capacity factor is consistent with Ghent's low production cost. Since Ghent is already modeled as a baseload station, the risk of significantly underestimating CCP production is low. However, reduction in load or unexpected outages at Ghent could affect the capacity factor and lower future CCP production.

Figures 1 and 2 show the forecasted cumulative CCP production at the end of each year compared to the expected available capacity at the end of 2009. With current forecasts for ash production and without any additional on-site capacity or off-site storage or reuse, ATB #2 is expected to reach full capacity during 2012, as shown in Figure 1. Assuming no beneficial reuse beyond the expected 222,000 cubic yards per year by CertainTeed, the gypsum stack is also expected to reach maximum capacity in 2012, as shown in Figure 2.

Figure 1: ATB #2 Capacity

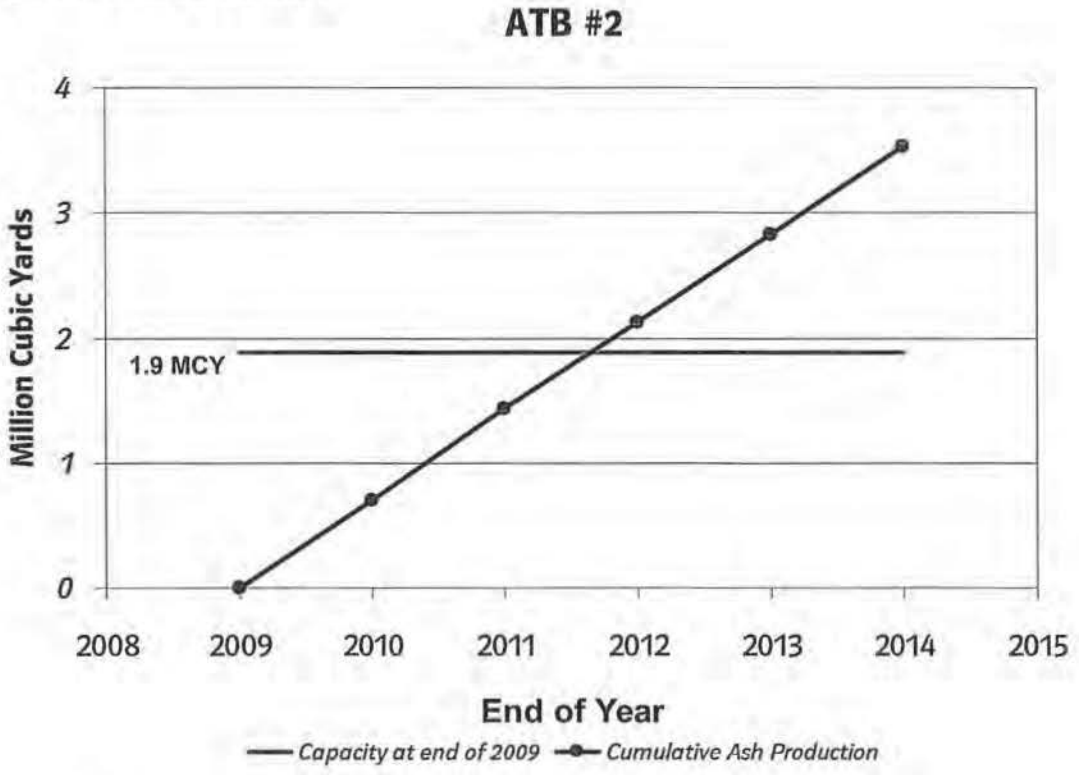
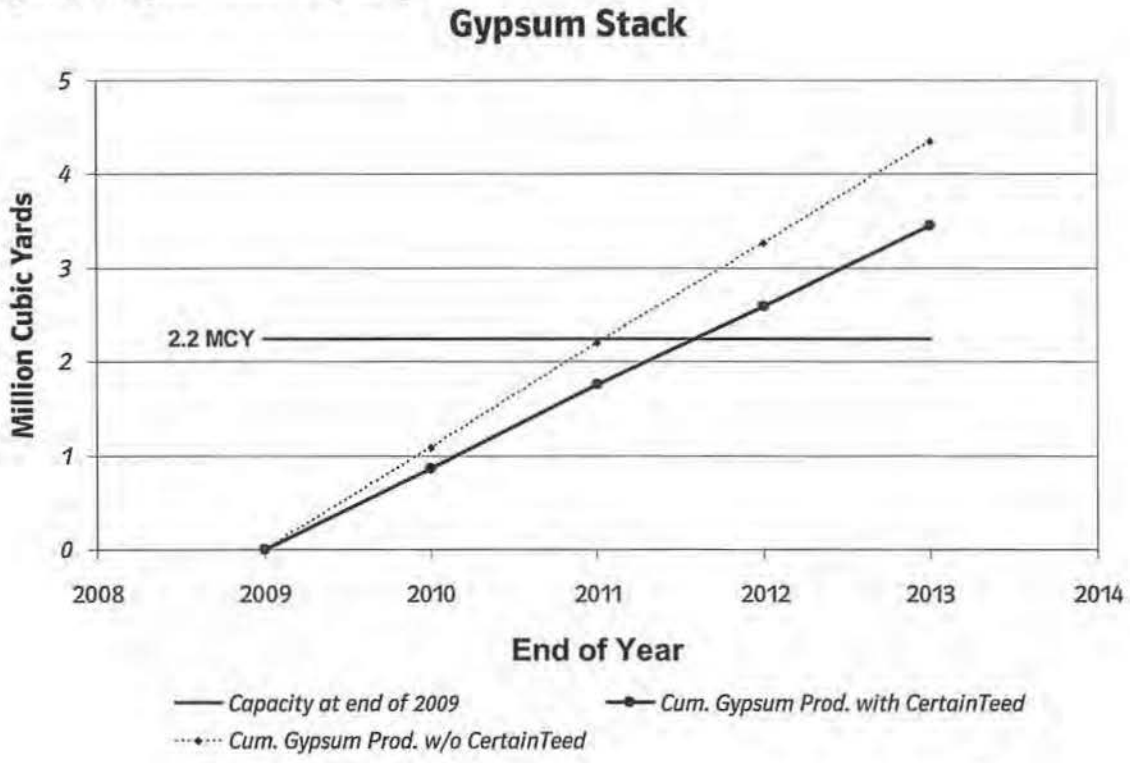


Figure 2: Gypsum Stack Capacity



In summary, the needs assessment indicates that additional CCP disposal alternatives will be needed for both ash and gypsum at Ghent by 2012. At least 0.6 MCY of CCP must be moved off-site in order to maintain operations of the existing storage facilities at Ghent through 2012.

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5. Development of Alternatives

In the case of CCP solutions for Ghent, Project Engineering and the CCP team developed two sets of options for evaluation:

1. Short-term storage options to meet 2009-2012 requirements
2. Long-term storage options to meet 2013-2037 requirements.

The short-term options were developed because long-term options cannot be in service before 2013, and on-site capacity is expected to be depleted in 2012. These options were evaluated independently, leading to a recommendation for short-term and long-term solutions.

5.1 Short-Term Disposal

As a result of ATB #2 and the gypsum stack nearing their maximum desired storage capacities, the station, in conjunction with the CCP Team, negotiated with Trans Ash, Inc. ("Trans Ash"), a company specializing in the reuse of CCP, to beneficially reuse 1.3 MCY (approximately 1.5 million tons as hauled) of CCP as structural fill. The 2009 base cost of this proposal is [redacted] per MCY[13], subject to annual adjustments to the base price and fuel cost adjustments. The base price is redetermined by increasing the previous year's price by 90 percent of the year-over-year percent change in the Consumer Price Index – All Urban Customers, U.S. City Average. The fuel adjustments are made for both off-road and on-road diesel use. Off-road fuel adjustments are calculated as the difference between the base diesel unit price of [redacted] per gallon and the average unit diesel price paid multiplied by the quantity of off-road diesel purchased each year. The on-road diesel adjustment is calculated as the product of the average quantity of fuel used and the difference between the base diesel price and the index price as published by the U.S. Department of Energy, Energy Information Administration in "The U.S. No 2 Diesel Low Sulfur (15-500 ppm) Retail Sales by All Sellers (Cents per Gallon)"

An agreement with Trans Ash would require that the full 1.3 MCY be moved in 2010-2012 to satisfy the end consumer of the beneficial reuse opportunity. Consistent with KU's CCP management strategy, this fill location has been evaluated and confirmed as appropriate for beneficial reuse. The location is not in an environmentally sensitive area.

The only near-term alternative to beneficial reuse of CCP is the use of an existing off-site commercial landfill. For 2009, the total unit cost of storage in the closest off-site landfill was estimated to be [redacted] per cubic yard[14]. In contrast to the Trans Ash proposal, an off-site landfill storage option requires that only a minimum of 0.6 MCY must be moved off-site prior to 2013 to ensure continuing operations at Ghent.

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13 [redacted] per MCY as stored is equivalent to [redacted] per ton as hauled.

14 [redacted] per cubic yard is equivalent to [redacted] per ton as hauled for transport and storage at Valley View landfill near Sulphur, KY, approximately 25 miles from Ghent. Cost components per ton are [redacted] for excavating and loading, [redacted] for hauling, and [redacted] for landfill tipping fee. This quoted tipping fee is slightly below the listed rates of [redacted]/ton for other regional public landfills.

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5.2 Long-Term Storage

To meet the long-term storage needs at Ghent, KU contracted GAI Consultants, Inc., Pittsburgh, PA ("GAI") to provide both an Initial Siting Study ("ISS") and a Final Conceptual Design Study of CCP storage alternatives at Ghent.[15] The ISS identified over forty potential alternatives based on combinations of a number of variables, including storage and transport methods, site locations, and relocation of transmission lines. As a result of this study, four on-site alternatives shown in Table 3 were selected for further consideration. In the process of developing the Final Conceptual Design Study, GAI refined the cost estimates for these alternatives in addition to other detailed engineering tasks. As an alternative to building on-site storage facilities, use of an existing off-site commercial landfill for storing future CCP was also considered as a long-term option.

Table 3: Alternatives for Long-Term Storage

		On-Site				
Case		**14/28**	**37**	**41**	**42/28**	**Off-Site Landfill**
Description		2 Landfills	1 Landfill	1 Pond	1 Pond 1 Landfill	
Total Capacity *(MCY)*		46.1	46.1	53.6	48.3	46.1 needed
Nominal Cost *($M)*	**Capital**					
	O&M[16]					

Each of the cases for on-site long-term storage was designed to hold twenty-five years of CCP production with phased construction. The total capacity required for each case differs due to the different density of CCP stored in ponds versus landfills. Table 4 shows the construction periods, the in-service years, and the capacity for each phase of the on-site cases. The site locations as shown in Figure 3 are noted as follows:

- Site M is north of ATB #2 on property owned by KU.
- Site E/F which is southeast of ATB #2 and include properties owned by KU and approximately 350 acres owned by others.
- Pond L represents vertical and lateral expansion east of ATB #2 with an impoundment.

[15] A preliminary draft of the Final Conceptual Design Study is shown in Exhibit JNV-4.
[16] The O&M figures in Table 3 include the cost for power to operate the on-site storage alternatives.

Figure 3: CCP Storage Site Alternatives

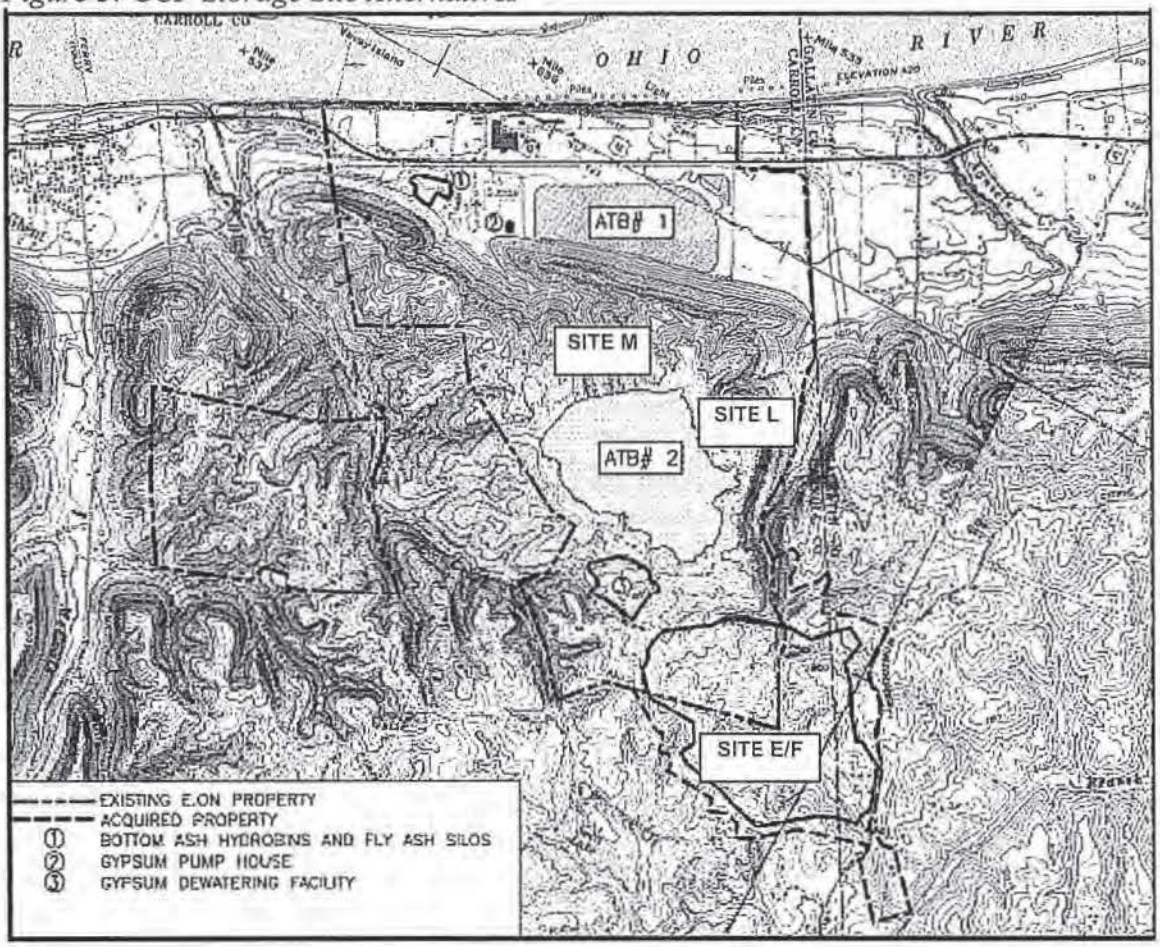


Table 4: Construction Phases for On-Site Storage Options

Case		**14/28**		**37**	**41**	**42/28**	
Site Location		M	E/F	E/F	L	L	E/F
Phase 1	**Construction**	2010-14		2010-14	2010-13	2010-14	
	In-Service	2013		2013	2013	2013	
	Capacity *(MCY)*	5.3	5.7	14.7	16.5	7.2	8.4
Phase 2	**Construction**	2016-18		2018-19	2017-19	2018-20	
	In-Service	2019		2020	2020	2021	
	Capacity *(MCY)*	8.5	8.0	12.3	15.7	8.3	7.7
Phase 3	**Construction**	--	2023-25	2024-26	2025-27	2027-29	
	In-Service	--	2026	2027	2028	2030	
	Capacity *(MCY)*	--	12.4	19.1	21.6	6.1	8.0
Phase 4	**Construction**	2027-29	--	--	--	--	
	In-Service	2030	--	--	--	--	
	Capacity *(MCY)*	6.2	--	--	--	--	--

Case 14/28. Case 14/28 consists of separate landfills for ash and gypsum with ash stored at Site M and gypsum stored at Site E/F. Construction of the landfills consists of four phases as shown in Table 4 with the first phase beginning in 2010 and the final phase ending in 2029. Figure 4 shows the phased cumulative design capacity of the landfill at Site M compared to the forecasted ash production. Figure 5 shows the phased cumulative design capacity of the landfill at Site E/F compared to the forecasted gypsum production both including and excluding the effect of the expected gypsum reuse by CertainTeed. These figures, as well as Figures 6-9, demonstrate that the designs for the timing and volume of capacity additions for each of the cases considered are reasonable compared the forecasted CCP production.

Figure 4: Long-Term Needs Assessment – Case 14/28, Landfill M

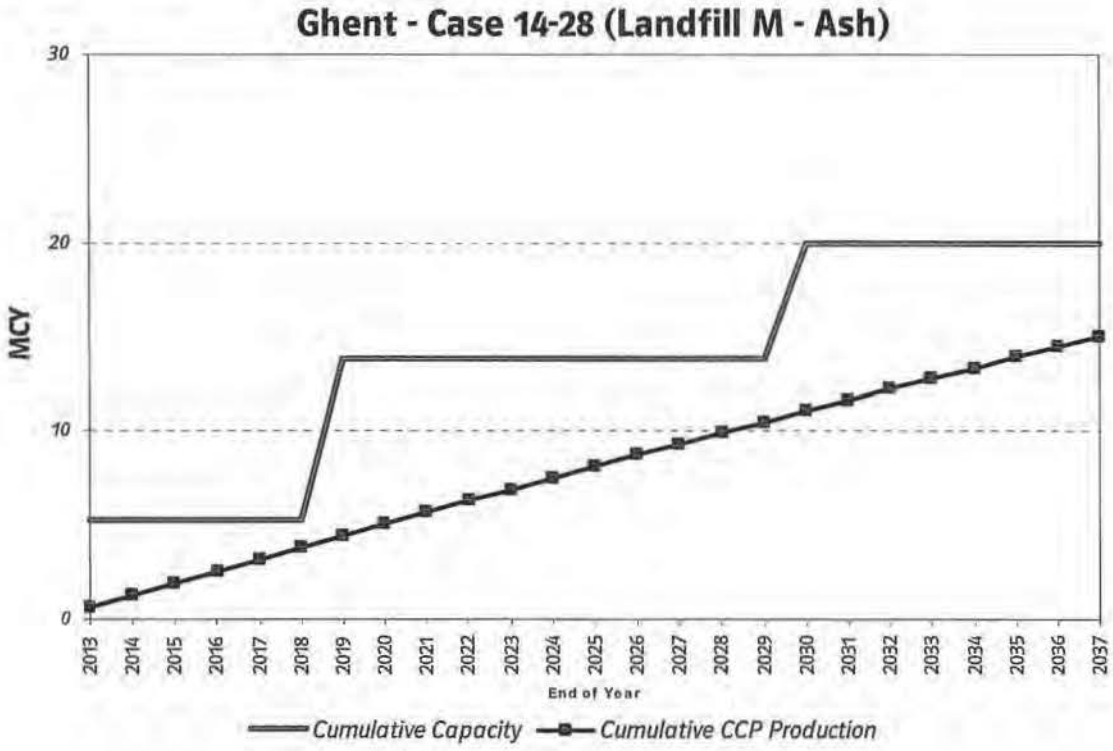
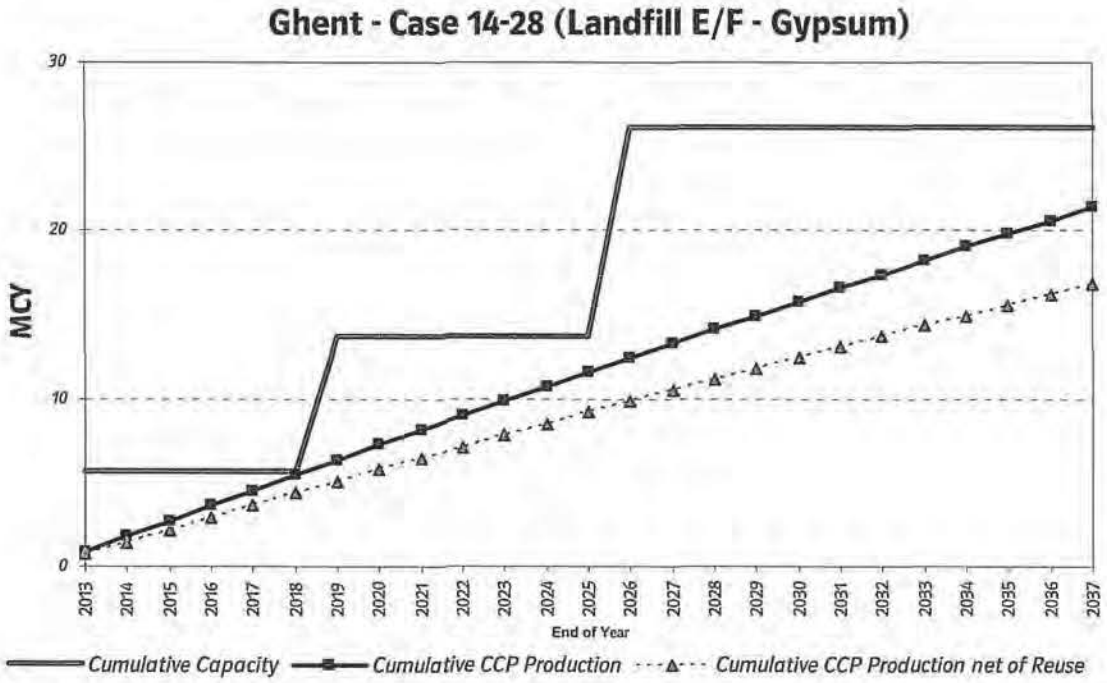
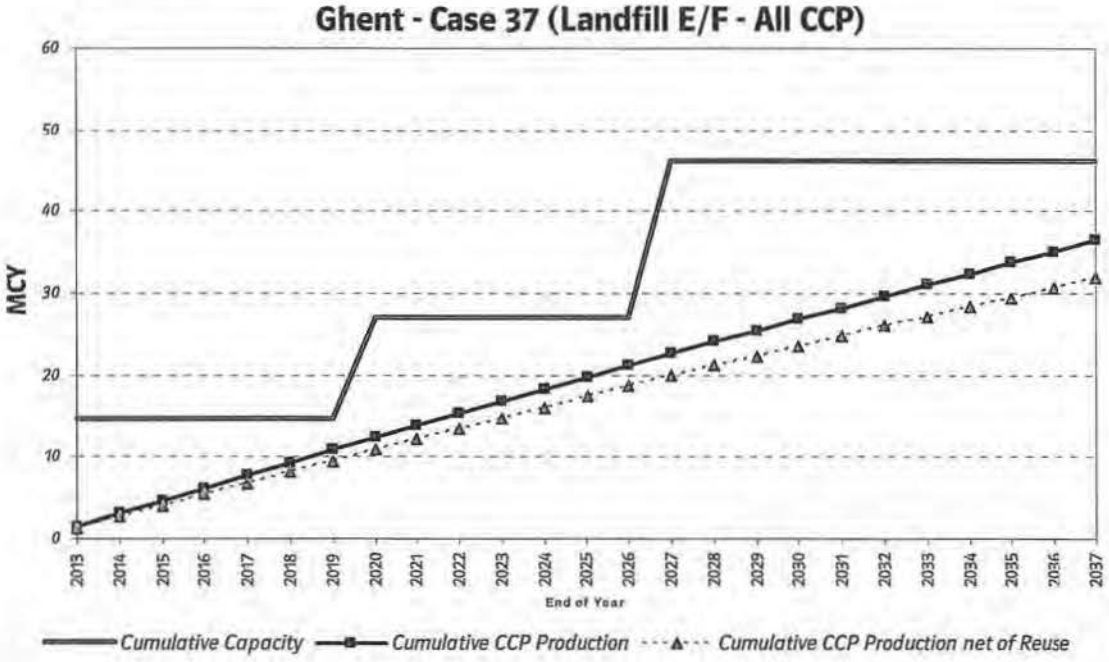


Figure 5: Long-Term Needs Assessment – Case 14/28, Landfill E/F



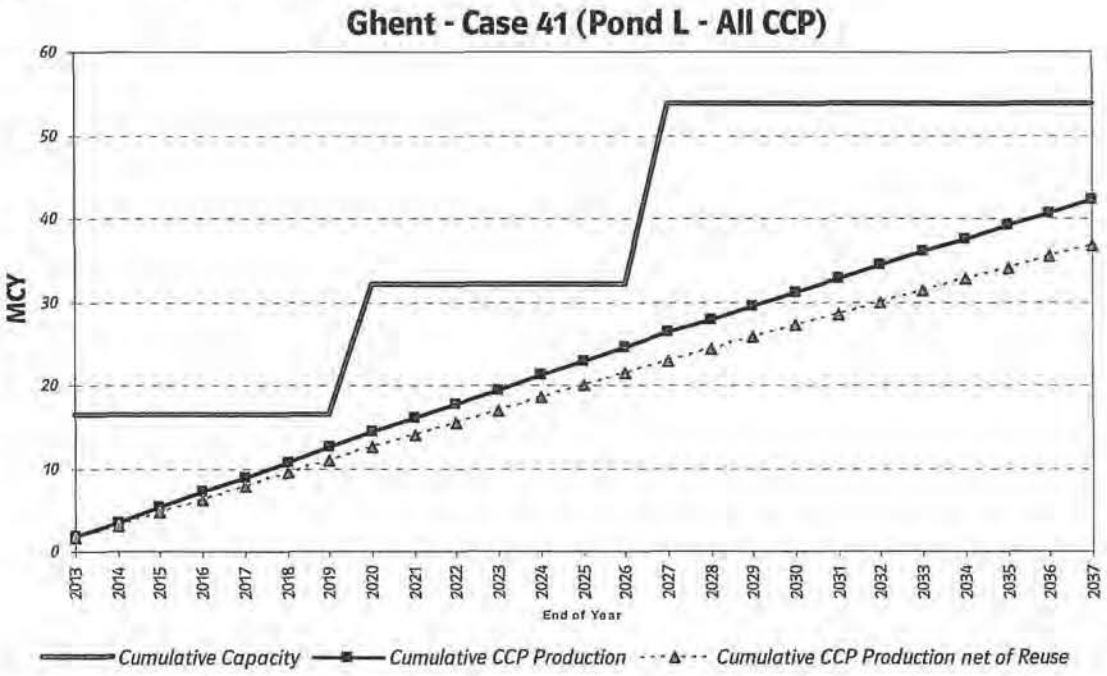
Case 37. Case 37 consists of a single landfill for both ash and gypsum at Site E/F. The construction schedule consists of three phases beginning in 2010 and ending in 2026. Figure 6 shows the phased cumulative design capacity of this landfill compared to the forecasted cumulative CCP production both including and excluding the effect of the expected gypsum reuse by CertainTeed.

Figure 6: Long-Term Needs Assessment – Case 37, Landfill E/F



Case 41. Case 41 consists of a single pond for both ash and gypsum at Site L. The construction schedule consists of three phases beginning in 2010 and ending in 2027. Figure 7 shows the phased cumulative design capacity of this landfill compared to the forecasted cumulative CCP production both including and excluding the effect of the expected gypsum reuse by CertainTeed.

Figure 7: Long-Term Needs Assessment – Case 41, Pond L



Case 42/28. Case 42/28 consists of a pond at "Site L" for ash and a landfill at "Site E/F" for gypsum. Construction of these facilities consists of four phases as shown beginning in 2010 and the final phase ending in 2029. Figure 8 shows the phased cumulative design capacity of the pond at Site L compared to the forecasted ash production. Figure 9 shows the phased cumulative design capacity of the landfill at Site E/F compared to the forecasted gypsum production both including and excluding the effect of the expected gypsum reuse by CertainTeed.

Figure 8: Long-Term Needs Assessment – Case 42/28, Pond L

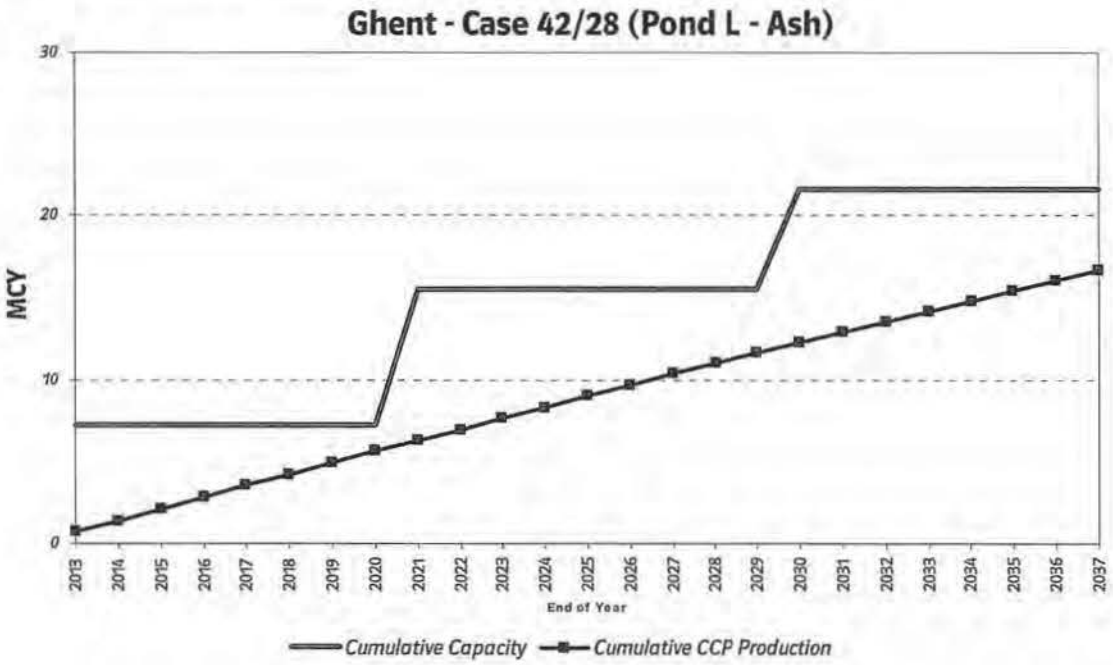
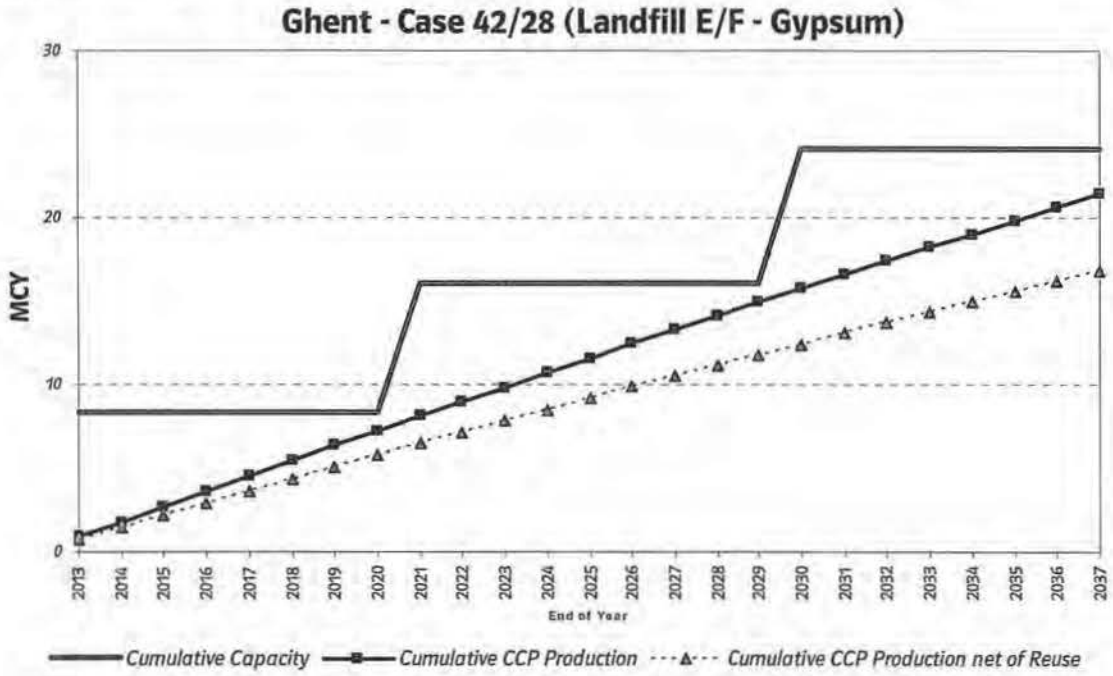


Figure 9: Long-Term Needs Assessment – Case 42/28, Landfill E/F



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6. Comparison of Alternatives

6.1 Short-Term Disposal

The short term disposal analysis compares the cost of a beneficial reuse initiative with Trans Ash to the cost of off-site landfill disposal. The Trans Ash proposal is to move 1.3 MCY in 2010 through 2012 and the plan for off-site landfill disposal is to move 0.6 MCY in 2012. Both of these options consist only of O&M costs, with no additional capital expenditure. As seen in Table 5, the Trans Ash proposal is the least-cost option to meet the short term capacity needs at Ghent. On a cost per volume basis, the Trans Ash option is almost 80% less costly than the off-site landfill option. Also, despite the higher volume requirement, the Trans Ash proposal's PVRR is $9.8 million lower than the off-site landfill alternative.

Table 5: PVRR Analysis Summary of Short-Term Alternatives

	Trans Ash Beneficial Reuse	**Off-site Landfill Disposal**
Total Quantity *(MCY)*	1.3	0.6
PVRR *(2009 million $)*		
Delta to Least Cost Case	*Least Cost*	*9.8*
Unit Cost *(2009 PVRR $/cubic yard)*		

6.2 Long-Term Storage

The long-term storage evaluation (Table 6) compares the PVRR and per-unit cost of four on-site storage alternatives selected in the engineering studies, in addition to disposal in an off-site commercial landfill. The financial assumptions related to the analysis of these cases are shown in Appendix 1, the projected cash flows are shown in Appendix 2, and the annual revenue requirements are detailed in Appendix 3.

The following is a brief comparison of the results:

Case 37. Case 37 consists of a common on-site landfill for both ash and gypsum. This is least cost on a PVRR basis by $26 million. This option is also lowest cost on a per unit volume basis at [redacted] PVRR per cubic yard. The favorable capital profile of this project results from the single landfill approach compared to Case 14/28, which includes separate landfills for ash and gypsum.

Case 14/28. Case 14/28 consists of separate landfills for ash and gypsum and involves higher up-front capital costs ($34 million higher through 2017, $6 million of which is due to transmission expenditures), an accelerated timeline for the addition of subsequent phases, and an additional construction phase compared to Case 37. This is partially offset by slightly lower annual O&M costs due to reduced distances for transporting ash. In summary, the lower costs associated with the shorter transport distances are overcome by the additional costs of the two landfills.

Cases 41 and Case 42/28. Case 41 consists of a single pond for both ash and gypsum and Case 42/28 consists of an ash pond and a gypsum landfill. The construction of an ash

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pond is significantly more capital intensive compared to a landfill, although the ongoing operation is less costly. Through 2016, both of these cases are approximately $95 million higher in total capital costs than Case 37. Construction of the second and third phases increases the capital premium to $850 million for Case 41 and $350 for Case 42/28. Inclusion of the pond closure costs in 2038 raises these figures to $1,145 million and $475 million for Cases 41 and 42/28, respectively. Although the O&M is significantly lower for these cases compared to Case 37, it is not enough to offset the effect of the higher initial capital expenditures.

Off-site landfill. The off-site landfill option consists only of O&M costs, but this option is the highest-cost alternative due to the high unit cost of off-site landfill disposal, which is approximately [redacted] PVRR per cubic yard.

Beneficial Reuse. KU will evaluate beneficial reuse opportunities as they arise, and will pursue proposals that are favorable to on-site disposal.

Table 6: PVRR Analysis Summary of Long-Term Alternatives
(2009 PVRR million $)

Case	**14/28**	**37**	**41**	**42/28**	**Off-Site Landfill**
PVRR					
Capital	[redacted]				
O&M					
Total					
Delta to Least Cost Case	*26*	*Least Cost*	*254*	*125*	*413*
Capacity *(MCY)*	46.1	46.1	53.6	48.3	46.1
Unit Cost *(2009 PVRR $/CY)*	[redacted]				

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7. Recommendations

The needs assessment demonstrates a need for additional CCP storage capacity at the Ghent station by 2012. Analysis of the options provided by Project Engineering demonstrates that the most favorable alternatives to meet Ghent's CCP storage needs are:

- Short-term: the proposal for beneficial reuse of 1.3 MCY of gypsum by Trans Ash in 2010 through 2012. The PVRR is [redacted] million, or [redacted] per cubic yard.
- Long-term: constructing the first phase of an on-site landfill to store both ash and gypsum, to be in-service in 2013. The PVRR is [redacted] million, comprised of [redacted] million capital and [redacted] million O&M.

The short-term solution utilizing beneficial reuse is almost 80% less on a per unit of volume basis than disposal at an off-site commercial landfill. The unit cost of this short-term recommendation is also lower than the unit cost of the recommended long-term on-site landfill. The long-term solution includes the construction of a single landfill and is 4% less on a PVRR basis than the dual landfill option (Case 14/28).

Further details regarding the status of this project and the expected construction schedule are shown in Appendix 4.

Appendix 1

Analysis Assumptions

- Study Period: 30-year period for operational costs impacts (2009-2038)
  50-year period for capital costs impacts (2009 through tax life of final project phase).

  The revenue requirements associated with capital costs are determined via the Capital Expenditure and Recovery module of the Strategist production and capital costing software. To completely account for capital projects costs over their lifetime, the revenue requirements associated with new capital projects were included beyond the operational study period through the end of their tax life.

- Capital and O&M costs associated with the addition of new environmental projects will be subject to recovery through the Environmental Cost Recovery ("ECR") mechanism. O&M costs for electrical power usage required to operate equipment related to CCP storage are included when comparing alternatives (noted as "Power" in Appendix 2) but are not included as recoverable costs for calculation of ECR billing factors.

- Financial data
  - Discount rate: 7.81%
  - Income tax rate: 38.9%
  - Insurance rate: 0.07%
  - Property tax rate: 0.15 %
  - Percentage of debt in capital structure: 47.01%
  - Debt interest rate/weighted cost of debt: 4.64%
  - Return on equity: 10.63%
  - Book life - average landfill phase (non-transmission): 12 years
  - Book life – transmission (line relocation): 40 years
  - Tax life: 20 years
  - Annual capital and O&M escalation rate: 6%
  - Contingency included in cost estimates: ~28%
  - E.ON US overhead included in capital costs 3.5%
  - Capital expenditures are assumed to occur at year end.

- CCP data
  - Coal ash content: 11.5%
  - Coal SO_2 content: ~5.9 lb/mmBTU
  - Coal heat content: 22.16 mmBTU/ton
  - FGD removal efficiency:
    Units 1, 3, 4 98%
    Unit 2 (currently Unit 1) 94.3%

Appendix 2

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Projected Cash Flows

Annual Cash Flows Short-Term Options O&M Only *($ thousands)*		
Case	**Beneficial Reuse**	**Off-Site Landfill**
2008	[redacted]	
2009		
2010		
2011		
2012		
2013+		
Total		

$ thousands

Case **14/28** **2 landfills**

	Annual Cash Flows										
	Capital						**O&M**				**Total**
	Phase1	Phase2	Phase3	Phase4	Transmission	**Total Capital**	Non-Power	Power	Trans Ash	**Total O&M**	
2008	[redacted]										
2009											
2010											
2011											
2012											
2013											
2014											
2015											
2016											
2017											
2018											
2019											
2020											
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2026											
2027											
2028											
2029											
2030											
2031											
2032											
2033											
2034											
2035											
2036											
2037											
2038											
Total											

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$ thousands

Case 37 1 landfill

	Annual Cash Flows										
	Capital						O&M				Total
	Phase1	Phase2	Phase3	Phase4	Transmission	Total Capital	Non-Power	Power	Trans Ash	Total O&M	
2008											
2009											
2010											
2011											
2012											
2013											
2014											
2015											
2016											
2017											
2018											
2019											
2020											
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2028											
2029											
2030											
2031											
2032											
2033											
2034											
2035											
2036											
2037											
2038											
Total											

CCP Plan for Ghent Station
June 2009
Appendix 2 – Projected Cash Flows

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$ thousands

Case 41 1 pond

	Annual Cash Flows										
	Capital						O&M				Total
	Phase1	Phase2	Phase3	Phase4	Transmission	**Total Capital**	Non-Power	Power	Trans Ash	**Total O&M**	
2008	[redacted]										
2009											
2010											
2011											
2012											
2013											
2014											
2015											
2016											
2017											
2018											
2019											
2020											
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2028											
2029											
2030											
2031											
2032											
2033											
2034											
2035											
2036											
2037											
2038											
Total											

CCP Plan for Ghent Station
June 2009
Appendix 2 – Projected Cash Flows

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$ thousands

Case 42/28 1 pond/1 landfill

	Annual Cash Flows										
	Capital						O&M				Total
	Phase1	Phase2	Phase3	Phase4	Transmission	Total Capital	Non-Power	Power	Trans Ash	Total O&M	
2008	[redacted]										
2009											
2010											
2011											
2012											
2013											
2014											
2015											
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2035											
2036											
2037											
2038											
Total											

CONFIDENTIAL INFORMATION REDACTED

$ thousands

Case	Off-Site Landfill (O&M Only)		
	Capital	O&M	
Cost Escalation		6%	2%
2008			
2009			
2010			
2011			
2012			
2013			
2014			
2015			
2016			
2017			
2018			
2019			
2020			
2021			
2022			
2023			
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2027			
2028			
2029			
2030			
2031			
2032			
2033			
2034			
2035			
2036			
2037			
2038			
Total			

Appendix 3

CONFIDENTIAL INFORMATION REDACTED

Revenue Requirements Detail

$ thousands

Case **Short-Term Beneficial Reuse (O&M Only)**

	Capital	O&M
2008	[redacted]	
2009		
2010		
2011		
2012		
2013+		
2009 PVRR		

$ thousands

Case **Short-Term Off-Site Landfill (O&M Only)**

	Capital	O&M
2008	[redacted]	
2009		
2010		
2011		
2012		
2013+		
2009 PVRR		

CONFIDENTIAL INFORMATION REDACTED

$ thousands

Case 14/28 2 landfills

	Annual Revenue Requirements										
	Capital						O&M				Total
	Phase1	Phase2	Phase3	Phase4	Transmission	Total Capital	Non-Power	Power	Trans Ash	Total O&M	
2009											
2010											
2011											
2012											
2013											
2014											
2015											
2016											
2017											
2018											
2019											
2020											
2021											
2022											
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2050											
2051											
2052											
2053											
2054											
2055											
2056											
2057											
2058											
2009 PVRR											

CONFIDENTIAL INFORMATION REDACTED

$ thousands

Case 37 1 landfill

	Annual Revenue Requirements										
	Capital						O&M				Total
	Phase1	Phase2	Phase3	Phase4	Transmission	Total Capital	Non-Power	Power	Trans Ash	Total O&M	
2009											
2010											
2011											
2012											
2013											
2014											
2015											
2016											
2017											
2018											
2019											
2020											
2021											
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2049											
2050											
2051											
2052											
2053											
2054											
2055											
2056											
2057											
2058											
2009 PVRR											

CONFIDENTIAL INFORMATION REDACTED

$ thousands

Case 41 1 pond

	Annual Revenue Requirements										
	Capital						O&M				Total
	Phase1	Phase2	Phase3	Phase4	Transmission	**Total Capital**	Non-Power	Power	Trans Ash	**Total O&M**	
2009	[redacted]										
2010											
2011											
2012											
2013											
2014											
2015											
2016											
2017											
2018											
2019											
2020											
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2053											
2054											
2055											
2056											
2057											
2058											
2009 PVRR											

CCP Plan for Ghent Station
June 2009
Appendix 3 – Revenue Requirements Detail

CONFIDENTIAL INFORMATION REDACTED

$ thousands

Case **42/28** **1 pond/1 landfill**

	Annual Revenue Requirements										
	Capital						O&M				Total
	Phase1	Phase2	Phase3	Phase4	Transmission	**Total Capital**	Non-Power	Power	Trans Ash	**Total O&M**	
2009	[redacted]										
2010											
2011											
2012											
2013											
2014											
2015											
2016											
2017											
2018											
2019											
2020											
2021											
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2050											
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2054											
2055											
2056											
2057											
2058											
2009 PVRR											

CONFIDENTIAL INFORMATION REDACTED

Case **Off-Site Landfill (O&M Only)**

$ thousands

using 6% cost escalation

	Capital	O&M
2008	[redacted]	
2009		
2010		
2011		
2012		
2013		
2014		
2015		
2016		
2017		
2018		
2019		
2020		
2021		
2022		
2023		
2024		
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2029		
2030		
2031		
2032		
2033		
2034		
2035		
2036		
2037		
2038		
2009 PVRR		

using 2% cost escalation

	Capital	O&M
2008	[redacted]	
2009		
2010		
2011		
2012		
2013		
2014		
2015		
2016		
2017		
2018		
2019		
2020		
2021		
2022		
2023		
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2036		
2037		
2038		
2009 PVRR		

Appendix 4

Project Status *(As of April 2009)*

Detailed Design

The detailed design phase for Case 37 is currently in progress. Meetings are being conducted with the E.ON U.S. property appraiser and the individual owners of properties within the boundaries of Site F. After obtaining approval from these property owners, geotechnical, archaeological, ecological, and historical structures studies have begun. This will allow for the completion of the detailed engineering design and the start of the development of the permits for this location. The permits are expected to be submitted by the end of 2009.

Construction Schedule

The preliminary design for the landfill is to develop it in three distinct phases. This detail as well as the closure plan for each phase will be further developed in the detailed design phase. The current schedule is shown in Table A4-1.

Table A4-1: Preliminary Construction Schedule

Task	Schedule
Property acquisition	3rd Quarter 2009
Begin first phase landfill development	2nd Quarter 2010
Finish first phase landfill development	4th Quarter 2014
Begin second phase landfill development	2nd Quarter 2018
Finish second phase landfill development	4th Quarter 2019
Begin third phase landfill development	2nd Quarter 2024
Finish third phase landfill development	4th Quarter 2026

The risks associated with the project include the following:

- Inability to reach a settlement on purchase price for one or more of the properties required for the site, resulting in lengthy eminent domain litigation
- Discovery of unknown geotechnical issues
- Litigation and intervention of the 401/404 permits for Sites E/F could delay the construction of this section of the work
- Failure of major components during start-up
- Unseasonable weather, such as exceptionally heavy rainfall, late spring, early on-set of winter, etc.
- Engineering design failure of a component of design
- Contractor delays due to shortage of materials or manpower issues
- Change in regulations

EXHIBIT B

Revenue Requirements Summary
2009 Amended Plan - KU

		2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Project 30	**Ghent Landfill - Phase I**										
	Revenue Requirement										
	Eligible Plant	4,321,671	46,476,848	105,485,803	177,577,356	191,133,916	201,941,953	202,576,976	203,254,220	203,969,979	203,969,979
	Less: Retired Plant	-	-	-	-	-	-	-	-	-	-
	Less: Accumulated Depreciation	-	-	-	-	(5,110,443)	(10,744,624)	(16,396,577)	(22,067,370)	(27,758,132)	(33,448,895)
	Plus: Accumulated Depreciation on retired plant	-	-	-	-	-	-	-	-	-	-
	Less: Deferred Tax Balance	-	-	-	-	(732,114)	(3,915,287)	(6,717,731)	(9,167,625)	(11,289,716)	(13,100,909)
	Plus: Deferred Tax Balance on retired plant	-	-	-	-	-	-	-	-	-	-
	Environmental Compliance Rate Base	4,321,671	46,476,848	105,485,803	177,577,356	185,291,361	187,282,042	179,464,668	172,019,025	164,922,131	157,420,175
	Rate of return	11.12%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
		$ 480,509	$ 5,098,393	$ 11,571,030	$ 19,478,952	$ 20,325,122	$ 20,543,496	$ 19,685,976	$ 18,869,243	$ 18,090,765	$ 17,267,855
	Operating expenses	84,800	121,349	128,630	136,348	19,003,308	20,143,507	21,352,117	22,633,244	23,991,239	25,430,713
	Annual Depreciation expense	-	-	-	-	5,110,443	5,634,180	5,651,953	5,670,793	5,690,762	5,690,762
	Less depreciation on retired plant	-	-	-	-	-	-	-	-	-	-
	Annual Property Tax expense	-	6,483	69,716	158,229	266,366	279,035	286,796	279,274	271,780	264,318
	Total OE	$ 84,800	$ 127,832	$ 198,346	$ 294,577	$ 24,380,117	$ 26,056,723	$ 27,290,866	$ 28,583,310	$ 29,953,782	$ 31,385,793
	Total E(m)	565,309	5,226,225	11,769,376	19,773,528	44,705,239	46,600,208	46,976,843	47,452,553	48,044,547	48,653,648

EXHIBIT C

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

THE APPLICATION OF KENTUCKY UTILITIES COMPANY FOR A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY AND APPROVAL OF ITS 2009 COMPLIANCE PLAN FOR RECOVERY BY ENVIRONMENTAL SURCHARGE	))))))	CASE NO. 2009-00197

DIRECT TESTIMONY OF
JOHN N. VOYLES, JR.
VICE PRESIDENT, TRANSMISSION AND GENERATION SERVICES
KENTUCKY UTILITIES COMPANY

Filed: June 26, 2009

contain sufficient capacity for bottom ash storage for approximately 30 years. The Main Pond will have approximately six (6) years of projected remaining capacity after elevation 912 feet is completed in 2012.

Exhibit JNV-8 is a conceptual design report for the Brown station ash treatment basin, prepared by the Fuller Mossbarger Scott and May engineering firm. Exhibit JNV-9 is a preliminary design report for the Brown station ash treatment basin, also prepared by Fuller Mossbarger Scott and May engineering firm. Exhibits JNV-8 and JNV-9 are on the compact disc included with this testimony and provide more details associated with this project.

Q. Is this project a cost-effective means of complying with environmental regulations and permits?

A. Yes, this project allows KU to continue to comply with all applicable environmental regulations. As first demonstrated in Case No. 2004-00426, and consistent with the 2006 ECR Update made to the Commission staff, the phased approach to the construction of the ash treatment basins continues to be the least-cost approach to manage CCP at the Brown station. As detailed in the testimony of Mr. Schram, high costs continue to preclude cost effective off-site alternatives.

Project 30 – Ghent Station Landfill

Q. Please describe the new landfill at the Ghent Station (Project 30), the anticipated cost and the associated timeline.

A. Project 30 consists of the first phase (Phase I) of a three phase, new landfill construction project at the Ghent station for continued on-site management of CCP. Completion of this project requires the procurement of approximately 350 acres of

land and relocation of approximately 2,500 linear feet of transmission line, existing underground utilities and a small cemetery (currently known to contain six burial plots). The project includes a transport system for the CCP material and the installation of a leachate collection/sediment retention pond. Phase I is expected to cost approximately $204 million with a total project capital cost (Phases I-III) estimated to be approximately $360 million. Phase I construction is expected to take 18-24 months to complete and is expected to be in-service by 2013.

Of the two existing on-site ash treatment basins, Basin #2 is currently the only operational basin at the Ghent station. Basin #1 reached its maximum desired capacity in 1995. Basin #2 was put into service in 1995 with a storage capacity of 2,580 acre-feet. In Case No. 2002-00208, KU advised the Commission that Basin #2 would be constructed in two phases. Detailed bids indicated that the two phase construction to elevation 800 feet had a projected total cost of $25.9 million (2002 dollars), while construction to 800 feet in one project had a total cost of $17.3 million. To take advantage of this significant cost savings, KU modified the construction project and undertook a single project to elevate the dike to 800 feet. As mentioned in Exhibit CRS-3 of Mr. Schram's testimony (the Coal Combustion Byproduct Plan for the Ghent station), vertical expansion of Basin #2 beyond 800 feet at Ghent was determined to be cost prohibitive.

Project 30 (Phase I of the proposed new landfill at the Ghent generating station) includes the following scope of work:

1. **Initial Siting Study** (Completed) – This phase evaluated various CCP storage locations on existing Ghent property and the area surrounding the plant. Initially, 42 landfill and impoundment scenarios were evaluated during this study.

2. **Conceptual Design** (Completed) – This phase took the results of the Initial Siting Study and developed 5 storage alternatives and provided scope of work estimates and net present value evaluations. Based on this data the best storage alternative was chosen, Case #37 – Single 25 year, landfill located on both existing plant and non-plant property.

3. **Final Design** (In Progress) – This phase will design and permit Case #37. Work in this phase will include the landfill design/permitting, wetlands/stream mitigation, transmission/distribution line relocation design, various environmental studies, etc. The goal of this phase is to obtain the construction permits, develop Issued for Construction drawings and specifications for all phases, as well as develop the landfill O&M manual.

4. **Phase I Construction** – Once the Certificate of Public Convenience and Necessity ("CPCN") and the permits have been received, a contractor will be chosen to perform the following (this is a high level list of activities):

- Mobilization
- Clearing and grubbing of the landfill and borrow areas
- Construction of stormwater/sediment ponds
- Grade work to attain the proper subgrade of the landfill
- Development of the borrow site(s)
- Installation of the liner system
- Installation of the leachate collection system, ponds, as well as the transfer system
- Construction of new site access roads
- Installation of the gypsum fines systems
- Construction of the CCP transfer storage facility across US-42
- Installation of the pipe conveyor
- Construction of the Gypsum Dewatering facility
- Upgrades to existing CCP transfer systems
- De-mobilization

Exhibit JNV-10 consists of two GAI Consultants reports on the initial siting study and conceptual design of the Ghent station landfill and is on the compact disc included with this testimony. Exhibit JNV-10 provides more details associated with this project.

Q. Is KU requesting a CPCN for the proposed landfill at Ghent (Project 30)?

A. Yes, as discussed in the testimony of Mr. Bellar, KU is requesting a CPCN for Project 30 in Exhibit JNV-1. Project 30 is associated with the construction of a new landfill and supporting systems at the Ghent station.

Q. Why is KU seeking a CPCN for Project 30, the proposed Ghent landfill at this time?

A. As discussed in Exhibit CRS-3 of Mr. Schram's testimony, KU's Ghent station produces three (3) coal combustion byproducts: bottom ash, fly ash and gypsum. The station has two (2) existing on-site treatment basins for ash and two (2) stacking areas for gypsum. Basin #1 is at its maximum desired capacity. As discussed in Exhibit CRS-3, Basin #2 and the gypsum stack facilities are both forecasted to reach their maximum desired capacity in 2012. In accordance with the CCP Strategy and the analysis presented in Mr. Schram's testimony, the recommended long-term CCP management alternative is Project 30, a landfill for all CCP material. The preliminary construction schedule for this project requires construction of the landfill to begin in 2010. As such, KU is requesting a CPCN in support of this project.

Q. What alternatives to the proposed project were evaluated?

A. The Initial Siting Study identified 42 potential alternatives based on combinations of variables including

- storage and CCP transport methods

- site locations
- transmission line relocation needs

Consistent with the CCP Strategy, opportunities for beneficial reuse were also evaluated by the Companies. The beneficial reuse alternatives at Ghent are discussed in Project 33. Mr. Schram's testimony provides details associated with the evaluation of the alternatives at Ghent.

Q. Is the proposed new on-site landfill at Ghent (Project 30) consistent with the Companies' strategy for long-term management of CCP?

A. Yes. The landfill ensures adequate on-site CCP management capacity exists for the long-term and will be constructed in multiple phases. Furthermore, as discussed in Mr. Schram's testimony, analytical assessments have been performed to identify and utilize any cost effective beneficial reuse alternatives in order to minimize environmental impact and promote environmental stewardship.

Q. Is this project a cost-effective means of complying with environmental regulations and permits?

A. Yes. Project 30 provides the best means of compliance with discharge and water quality regulations. Mr. Schram's testimony provides details associated with the economics of this project.

Project 31 -- Trimble County Station
Ash Treatment Basin and Gypsum Storage Pond

Q. Please describe the Trimble County Station Ash Treatment Basin and Gypsum Storage Pond (Project 31), the anticipated cost and the associated timeline.

A. The primary CCP managed at the Trimble County station are bottom ash, fly ash and gypsum, all of which are currently managed either through treatment in the 85 acre

EXHIBIT D

Revenue Requirments Summary
Gypsum Disposal at Sterling Materials

			2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Revenue Requirement													
Eligible Plant			$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 203,254,220	$ 203,969,979	$ 203,969,979	$ 248,969,979
Less Gypsum Plant			$ -	$ (14,090,000)	$ (40,060,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (98,110,000)
Revised Eligible Plant			$ 4,321,671	$ 32,388,846	$ 65,425,803	$ 124,467,356	$ 138,023,918	$ 148,831,953	$ 149,468,976	$ 150,144,220	$ 150,859,979	$ 150,859,979	$ 150,859,979
Less Accumulated Depreciation							$ (3,690,414)	$ (7,842,826)	$ (12,013,010)	$ (16,202,034)	$ (20,411,027)	$ (24,620,020)	$ (28,829,013)
Less Deferred Tax Balance							$ (528,683)	$ (2,857,926)	$ (4,921,730)	$ (6,731,945)	$ (8,301,165)	$ (9,641,200)	$ (11,289,441)
Environmental Compliance Rate Base			$ 4,321,671	$ 32,388,846	$ 65,425,803	$ 124,467,356	$ 133,804,821	$ 138,131,202	$ 132,534,236	$ 127,210,241	$ 122,147,788	$ 116,598,759	$ 110,741,525
Rate of Return			11.1%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
Assumed Tons (1.155)	1,000,000		$ 480,509	$ 3,553,056	$ 7,177,211	$ 13,654,069	$ 14,678,389	$ 15,152,993	$ 14,539,006	$ 13,954,963	$ 13,399,612	$ 12,790,884	$ 12,148,345
86.7500% Cubic yards	867,500												
Operating Expenses			$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,556
less Gypsum to On-site Landfill							$ (8,887,032)	$ (9,420,254)	$ (9,985,469)	$ (10,584,598)	$ (11,219,674)	$ (11,892,854)	$ (12,606,425)
Gypsum to Sterling	**$ 10.50**						$ 10,500,000	$ 11,130,000	$ 11,797,800	$ 12,505,668	$ 13,256,008	$ 14,051,369	$ 14,894,451
Net Operating			$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 20,616,276	$ 21,853,253	$ 23,164,448	$ 24,554,314	$ 26,027,573	$ 27,589,228	$ 29,244,581
Annual Depreciation							$ 3,690,414	$ 4,152,411	$ 4,170,184	$ 4,189,024	$ 4,208,993	$ 4,208,993	$ 4,208,993
Annual Property Tax Expense				$ 6,483	$ 69,718	$ 158,229	$ 266,366	$ 279,017	$ 286,798	$ 279,274	$ 271,751	$ 264,317	$ 264,317
Total OE			$ 84,800	$ 127,832	$ 198,348	$ 294,577	$ 24,573,056	$ 26,284,681	$ 27,621,430	$ 29,022,612	$ 30,508,317	$ 32,062,537	$ 33,717,891
Total E(m) Gypsum to Sterling		$ 476,298,826	$ 565,309	$ 3,680,888	$ 7,375,559	$ 13,948,646	$ 39,251,445	$ 41,437,674	$ 42,160,436	$ 42,977,575	$ 43,907,929	$ 44,853,421	$ 45,866,236
Total E(m) - Project 30 (See below)		$ 555,782,375	$ 565,309	$ 5,226,225	$ 11,769,378	$ 19,773,528	$ 44,705,239	$ 46,600,208	$ 46,976,843	$ 47,458,553	$ 48,044,547	$ 48,653,648	$ 55,312,476
Difference **PVRR**	**7.81%**	**$ (79,483,549)**	$ -	$ (1,545,337)	$ (4,393,819)	$ (5,824,882)	$ (5,453,794)	$ (5,162,534)	$ (4,816,407)	$ (4,480,978)	$ (4,136,618)	$ (3,800,227)	$ (9,446,240)
Date			12/31/2009	12/31/2010	12/31/2011	12/31/2012	12/31/2013	12/31/2014	12/31/2015	12/31/2016	12/31/2017	12/31/2018	12/31/2019

Revenue Requirments Summary
2009 Amended Plan
Project 30 Ghent Landfill Phase I
See Exhibit B

			2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
													Start Phase II
Revenue Requirement													$ 40,000,000
Eligible Plant			$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 203,254,220	$ 203,969,979	$ 203,969,979	$ 248,969,979
Less Gypsum Plant			$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Revised Eligible Plant			$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 203,254,220	$ 203,969,979	$ 203,969,979	$ 248,969,979
Less Accumulated Depreciation							$ (5,110,443)	$ (10,744,623)	$ (16,396,576)	$ (22,067,369)	$ (27,758,131)	$ (33,448,893)	$ (40,395,155)
Less Deferred Tax Balance							$ (732,114)	$ (3,915,341)	$ (6,717,677)	$ (9,168,992)	$ (11,289,232)	$ (13,098,586)	$ (15,818,743)
Environmental Compliance Rate Base			$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 185,291,361	$ 187,281,989	$ 179,464,723	$ 172,017,859	$ 164,922,616	$ 157,422,500	$ 192,756,081
Rate of Return			11.1%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
			$ 480,509	$ 5,098,729	$ 11,571,793	$ 19,480,236	$ 20,326,462	$ 20,544,834	$ 19,687,280	$ 18,870,359	$ 18,092,011	$ 17,269,248	$ 21,145,342
Operating Expenses			$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,555.78
less Gypsum to On-site Landfill							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Gypsum to Sterling							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Net Operating			$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,556
Annual Depreciation							$ 5,110,443	$ 5,634,180	$ 5,651,953	$ 5,670,793	$ 5,690,762	$ 5,690,762	$ 6,946,262
Annual Property Tax Expense				$ 6,483	$ 69,718	$ 158,229	$ 266,366	$ 279,017	$ 286,798	$ 279,274	$ 271,751	$ 264,317	$ 264,317
Total OE			$ 84,800	$ 127,832	$ 198,348	$ 294,577	$ 24,380,117	$ 26,056,704	$ 27,290,868	$ 28,583,311	$ 29,953,752	$ 31,385,792	$ 34,167,134
Total E(m) Gypsum to On-site Landfill as Calculated			$ 565,309	$ 5,226,561	$ 11,770,141	$ 19,774,813	$ 44,706,579	$ 46,601,539	$ 46,978,148	$ 47,453,670	$ 48,045,763	$ 48,655,040	$ 55,312,476
Total E(m) Gypsum to On-site Landfill per KU			$ 565,309	$ 5,226,225	$ 11,769,378	$ 19,773,528	$ 44,705,239	$ 46,600,208	$ 46,976,843	$ 47,458,553	$ 48,044,547	$ 48,653,648	
Calculation Check Difference			$ -	$ 336	$ 763	$ 1,285	$ 1,340	$ 1,331	$ 1,305	$ (4,883)	$ 1,216	$ 1,392	
Site E/F Hauling cost of Ash 2.25 mile round trip							$ 2,822,723	$ 2,992,086	$ 3,171,612	$ 3,361,908	$ 3,563,623	$ 3,777,440	$ 4,004,087
Haul Road Maintenance							$ 53,529	$ 56,741	$ 60,145	$ 63,754	$ 67,579	$ 71,634	$ 75,932
Total							$ 2,876,252	$ 3,048,827	$ 3,231,757	$ 3,425,662	$ 3,631,202	$ 3,849,074	$ 4,080,018
Reduce by 50% for Site M			$ -	$ -	$ -	$ -	$ 1,438,126	$ 1,524,414	$ 1,615,878	$ 1,712,831	$ 1,815,601	$ 1,924,537	$ 2,040,009
Difference **PVRR**	**7.81%**	**$ (21,865,903)**											

Revenue Requirments Summary
Gypsum Disposal at Sterling Materials

			2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
													Start Phase II
Revenue Requirement													$ 40,000,000
Eligible Plant			$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 323,969,979	$ 353,969,979	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
Less Gypsum Plant			$ (133,110,000)	$ (133,110,000)	$ (133,110,000)	$ (133,110,000)	$ (133,110,000)	$ (173,110,000)	$ (203,110,000)	$ (209,140,021)	$ (209,140,021)	$ (209,140,021)	$ (169,140,021)
Revised Eligible Plant			$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 190,859,979
Less Accumulated Depreciation			$ (33,038,006)	$ (37,246,999)	$ (41,455,992)	$ (45,664,985)	$ (49,873,978)	$ (54,082,972)	$ (58,291,965)	$ (62,500,958)	$ (66,709,951)	$ (70,918,944)	$ (76,243,937)
Less Deferred Tax Balance			$ (12,937,683)	$ (14,585,925)	$ (16,234,167)	$ (17,882,408)	$ (19,530,650)	$ (21,178,892)	$ (22,827,133)	$ (24,475,375)	$ (26,123,617)	$ (27,771,858)	$ (29,857,126)
Environmental Compliance Rate Base			$ 104,884,290	$ 99,027,055	$ 93,169,820	$ 87,312,585	$ 81,455,351	$ 75,598,116	$ 69,740,881	$ 63,883,646	$ 58,026,411	$ 52,169,177	$ 84,758,916
Rate of Return			10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
Assumed Tons (1.155)	1,000,000		$ 11,505,807	$ 10,863,268	$ 10,220,729	$ 9,578,191	$ 8,935,652	$ 8,293,113	$ 7,650,575	$ 7,008,036	$ 6,365,497	$ 5,722,959	$ 9,298,053
86.7500% Cubic yards	867,500												
Operating Expenses			$ 28,573,949	$ 30,288,386	$ 32,105,689	$ 34,032,031	$ 36,073,952	$ 38,238,390	$ 40,532,693	$ 42,964,655	$ 45,542,534	$ 48,275,086	$ 51,171,591
less Gypsum to On-site Landfill			$ (13,362,811)	$ (14,164,579)	$ (15,014,454)	$ (15,915,321)	$ (16,870,241)	$ (17,882,455)	$ (18,955,402)	$ (20,092,727)	$ (21,298,290)	$ (22,576,188)	$ (23,930,759)
Gypsum to Sterling	**$ 10.50**		$ 15,788,118	$ 16,735,405	$ 17,739,529	$ 18,803,901	$ 19,932,135	$ 21,128,063	$ 22,395,747	$ 23,739,492	$ 25,163,861	$ 26,673,693	$ 28,274,114
Net Operating			$ 30,999,256	$ 32,859,211	$ 34,830,764	$ 36,920,610	$ 39,135,847	$ 41,483,997	$ 43,973,037	$ 46,611,419	$ 49,408,105	$ 52,372,591	$ 55,514,946
Annual Depreciation			$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 5,324,993
Annual Property Tax Expense			$ 322,630	$ 367,985	$ 367,985	$ 367,985	$ 367,985	$ 367,985	$ 419,820	$ 458,696	$ 466,510	$ 466,510	$ 466,510
Total OE			$ 35,530,879	$ 37,436,190	$ 39,407,743	$ 41,497,588	$ 43,712,825	$ 46,060,976	$ 48,601,850	$ 51,279,108	$ 54,083,607	$ 57,048,094	$ 61,306,449
Total E(m) Gypsum to Sterling		$ 476,298,826	$ 47,036,686	$ 48,299,458	$ 49,628,472	$ 51,075,779	$ 52,648,477	$ 54,354,089	$ 56,252,425	$ 58,287,144	$ 60,449,105	$ 62,771,052	$ 70,604,502
Total E(m) - Project 30 (See below)		$ 555,782,375	$ 60,594,706	$ 61,145,021	$ 61,752,847	$ 62,469,712	$ 63,302,156	$ 69,590,749	$ 74,557,268	$ 76,324,534	$ 77,376,925	$ 78,576,175	$ 79,939,378
Difference **PVRR**	**7.81%**	**$ (79,483,549)**	$ (13,558,020)	$ (12,845,563)	$ (12,124,375)	$ (11,393,932)	$ (10,653,679)	$ (15,236,660)	$ (18,304,843)	$ (18,037,390)	$ (16,927,821)	$ (15,805,123)	$ (9,334,876)
Date			12/31/2020	12/31/2021	12/31/2022	12/31/2023	12/31/2024	12/31/2025	12/31/2026	12/31/2027	12/31/2028	12/31/2029	12/31/2030

Revenue Requirments Summary
2009 Amended Plan
Project 30 Ghent Landfill Phase I
See Exhibit B

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
						Start Phase III					
Revenue Requirement	$ 40,000,000					$ 40,000,000	$ 30,000,000	$ 6,030,021			
Eligible Plant	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 323,969,979	$ 353,969,979	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
Less Gypsum Plant	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Revised Eligible Plant	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 323,969,979	$ 353,969,979	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
Less Accumulated Depreciation	$ (48,317,917)	$ (56,240,679)	$ (64,163,440)	$ (72,086,202)	$ (80,008,964)	$ (89,047,726)	$ (98,923,488)	$ (108,967,487)	$ (119,011,486)	$ (129,055,485)	$ (139,099,485)
Less Deferred Tax Balance	$ (18,921,296)	$ (22,023,850)	$ (25,126,403)	$ (28,228,957)	$ (31,331,510)	$ (34,871,089)	$ (38,738,438)	$ (42,671,668)	$ (46,604,898)	$ (50,538,128)	$ (54,471,358)
Environmental Compliance Rate Base	$ 216,730,766	$ 205,705,451	$ 194,680,135	$ 183,654,820	$ 172,629,505	$ 200,051,164	$ 216,308,054	$ 208,360,845	$ 194,383,616	$ 180,406,387	$ 166,429,157
Rate of Return	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
	$ 23,775,365	$ 22,565,888	$ 21,356,411	$ 20,146,934	$ 18,937,457	$ 21,945,613	$ 23,728,993	$ 22,857,185	$ 21,323,883	$ 19,790,581	$ 18,257,279
Operating Expenses	$ 28,573,949.13	$ 30,288,386.07	$ 32,105,689.24	$ 34,032,030.59	$ 36,073,952.43	$ 38,238,389.57	$ 40,532,692.95	$ 42,964,654.53	$ 45,542,533.80	$ 48,275,085.83	$ 51,171,590.97
less Gypsum to On-site Landfill	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Gypsum to Sterling	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Net Operating	$ 28,573,949	$ 30,288,386	$ 32,105,689	$ 34,032,031	$ 36,073,952	$ 38,238,390	$ 40,532,693	$ 42,964,655	$ 45,542,534	$ 48,275,086	$ 51,171,591
Annual Depreciation	$ 7,922,762	$ 7,922,762	$ 7,922,762	$ 7,922,762	$ 7,922,762	$ 9,038,762	$ 9,875,762	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999
Annual Property Tax Expense	$ 322,630	$ 367,985	$ 367,985	$ 367,985	$ 367,985	$ 419,820	$ 458,696	$ 466,510	$ 466,510	$ 466,510	$ 466,510
Total OE	$ 36,819,341	$ 38,579,133	$ 40,396,436	$ 42,322,778	$ 44,364,700	$ 47,645,137	$ 50,828,274	$ 53,467,349	$ 56,053,043	$ 58,785,595	$ 61,682,100
Total E(m) Gypsum to On-site Landfill as Calculated	$ 60,594,706	$ 61,145,021	$ 61,752,847	$ 62,469,712	$ 63,302,156	$ 69,590,749	$ 74,557,268	$ 76,324,534	$ 77,376,925	$ 78,576,175	$ 79,939,378
Total E(m) Gypsum to On-site Landfill per KU											
Calculation Check Difference											
Site E/F Hauling cost of Ash 2.25 mile round trip	$ 4,244,332	$ 4,498,992	$ 4,768,931	$ 5,055,067	$ 5,358,371	$ 5,679,873	$ 6,020,666	$ 6,381,906	$ 6,764,820	$ 7,170,709	$ 7,600,952
Haul Road Maintenance	$ 80,488	$ 85,317	$ 90,436	$ 95,862	$ 101,614	$ 107,711	$ 114,174	$ 121,024	$ 128,285	$ 135,982	$ 144,141
Total	$ 4,324,820	$ 4,584,309	$ 4,859,367	$ 5,150,929	$ 5,459,985	$ 5,787,584	$ 6,134,839	$ 6,502,930	$ 6,893,105	$ 7,306,692	$ 7,745,093
Reduce by 50% for Site M	$ 2,162,410	$ 2,292,154	$ 2,429,684	$ 2,575,465	$ 2,729,993	$ 2,893,792	$ 3,067,420	$ 3,251,465	$ 3,446,553	$ 3,653,346	$ 3,872,547
Difference **PVRR** **7.81%** **$ (21,865,903)**											

Revenue Requirments Summary
Gypsum Disposal at Sterling Materials

			2031	2032	2033	2034	2035	2036	2037	
Revenue Requirement			$ 40,000,000							
Eligible Plant			$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	
Less Gypsum Plant			$ (129,140,021)	$ (129,140,021)	$ (129,140,021)	$ (129,140,021)	$ (129,140,021)	$ (129,140,021)	$ (129,140,021)	
Revised Eligible Plant			$ 230,859,979	$ 230,859,979	$ 230,859,979	$ 230,859,979	$ 230,859,979	$ 230,859,979	$ 230,859,979	
Less Accumulated Depreciation			$ (82,684,930)	$ (89,125,923)	$ (95,566,916)	$ (102,007,909)	$ (108,448,902)	$ (114,889,895)	$ (121,330,888)	
Less Deferred Tax Balance			$ (32,379,419)	$ (34,901,711)	$ (37,424,004)	$ (39,946,297)	$ (42,468,590)	$ (44,990,883)	$ (47,513,176)	
Environmental Compliance Rate Base			$ 115,795,631	$ 106,832,345	$ 97,869,059	$ 88,905,773	$ 79,942,487	$ 70,979,202	$ 62,015,916	
Rate of Return			10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	
Assumed	Tons (1.155)	1,000,000	$ 12,702,781	$ 11,719,508	$ 10,736,236	$ 9,752,963	$ 8,769,691	$ 7,786,418	$ 6,803,146	
86.7500%	Cubic yards	867,500								
Operating Expenses			$ 54,241,886	$ 57,496,400	$ 60,946,184	$ 64,602,955	$ 68,479,132	$ 72,587,880	$ 76,943,153	
less Gypsum to On-site Landfill			$ (25,366,604)	$ (26,888,601)	$ (28,501,917)	$ (30,212,032)	$ (32,024,754)	$ (33,946,239)	$ (35,983,013)	
Gypsum to Sterling		**$ 10.50**	$ 29,970,561	$ 31,768,795	$ 33,674,922	$ 35,695,418	$ 37,837,143	$ 40,107,371	$ 42,513,814	
Net Operating			$ 58,845,843	$ 62,376,594	$ 66,119,189	$ 70,086,341	$ 74,291,521	$ 78,749,012	$ 83,473,953	
Annual Depreciation			$ 6,440,993	$ 6,440,993	$ 6,440,993	$ 6,440,993	$ 6,440,993	$ 6,440,993	$ 6,440,993	
Annual Property Tax Expense			$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	
Total OE			$ 65,753,346	$ 69,284,096	$ 73,026,692	$ 76,993,843	$ 81,199,024	$ 85,656,515	$ 90,381,456	
Total E(m) Gypsum to Sterling		$ 476,298,826	$ 78,456,126	$ 81,003,604	$ 83,762,928	$ 86,746,807	$ 89,968,715	$ 93,442,933	$ 97,184,602	$ 1,547,998,022
Total E(m) - Project 30 (See below)		$ 555,782,375	$ 81,476,372	$ 83,197,583	$ 85,114,065	$ 87,237,534	$ 89,580,409	$ 92,155,855	$ 94,977,826	$ 1,754,455,070
Difference	**PVRR**	**7.81% $ (79,483,549)**	$ (3,020,245)	$ (2,193,978)	$ (1,351,137)	$ (490,727)	$ 388,306	$ 1,287,079	$ 2,206,776	$ (206,457,048)
Date			12/31/2031	12/31/2032	12/31/2033	12/31/2034	12/31/2035	12/31/2036	12/31/2037	
										$ (206,457,048)

Revenue Requirments Summary
2009 Amended Plan
Project 30 Ghent Landfill Phase I
See Exhibit B

			2031	2032	2033	2034	2035	2036	2037
Revenue Requirement									
Eligible Plant			$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
Less Gypsum Plant			$ -	$ -	$ -	$ -	$ -	$ -	$ -
Revised Eligible Plant			$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
Less Accumulated Depreciation			$ (149,143,484)	$ (159,187,483)	$ (169,231,482)	$ (179,275,482)	$ (189,319,481)	$ (199,363,480)	$ (209,407,479)
Less Deferred Tax Balance			$ (58,404,588)	$ (62,337,818)	$ (66,271,048)	$ (70,204,279)	$ (74,137,509)	$ (78,070,739)	$ (82,003,969)
Environmental Compliance Rate Base			$ 152,451,928	$ 138,474,699	$ 124,497,469	$ 110,520,240	$ 96,543,010	$ 82,565,781	$ 68,588,552
Rate of Return			10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
			$ 16,723,976	$ 15,190,674	$ 13,657,372	$ 12,124,070	$ 10,590,768	$ 9,057,466	$ 7,524,164
Operating Expenses			$ 54,241,886.43	$ 57,496,399.62	$ 60,946,183.60	$ 64,602,954.61	$ 68,479,131.89	$ 72,587,879.80	$ 76,943,152.59
less Gypsum to On-site Landfill			$ -	$ -	$ -	$ -	$ -	$ -	$ -
Gypsum to Sterling			$ -	$ -	$ -	$ -	$ -	$ -	$ -
Net Operating			$ 54,241,886	$ 57,496,400	$ 60,946,184	$ 64,602,955	$ 68,479,132	$ 72,587,880	$ 76,943,153
Annual Depreciation			$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999
Annual Property Tax Expense			$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510
Total OE			$ 64,752,395	$ 68,006,908	$ 71,456,692	$ 75,113,463	$ 78,989,641	$ 83,098,389	$ 87,453,661
Total E(m) Gypsum to On-site Landfill as Calculated			$ 81,476,372	$ 83,197,583	$ 85,114,065	$ 87,237,534	$ 89,580,409	$ 92,155,855	$ 94,977,826
Total E(m) Gypsum to On-site Landfill per KU									
Calculation Check Difference									
Site E/F	Hauling cost of Ash 2.25 mile round trip		$ 8,057,009	$ 8,540,429	$ 9,052,855	$ 9,596,026	$ 10,171,788	$ 10,782,095	$ 11,429,021
	Haul Road Maintenance		$ 152,790	$ 161,957	$ 171,675	$ 181,975	$ 192,894	$ 204,467	$ 216,735
Total			$ 8,209,799	$ 8,702,387	$ 9,224,530	$ 9,778,002	$ 10,364,682	$ 10,986,563	$ 11,645,756
Reduce by 50% for Site M			$ 4,104,899	$ 4,351,193	$ 4,612,265	$ 4,889,001	$ 5,182,341	$ 5,493,281	$ 5,822,878
Difference	**PVRR**	**7.81% $ (21,865,903)**							

EXHIBIT E

GHENT LANDFILL (PHASE I)

Operating & Maintenance Costs ($)	2010	2011	2012	2013	2014	2015	2016	2017
Ground Water Sampling and Testing	14,045	14,888	15,781	16,728	17,731	18,795	19,923	21,118
Leachate Management	-	-	-	83,639	88,657	93,977	99,616	105,592
Surveying (As-builts)	16,292	17,270	18,306	19,404	20,569	21,803	23,111	24,497
Pump House Fly Ash and Bottom Ash Segregation	75,843	80,394	85,217	-	-	-	-	-
Dry Ash/Pyrites Handling System - Conveyor	-	-	-	2,161,234	2,290,908	2,428,363	2,574,065	2,728,509
Dry Gypsum Handling System	-	-	-	682,495	723,445	766,851	812,863	861,634
Leachate Pump House	15,169	16,079	17,043	18,066	19,150	20,299	21,517	22,808
Hauling Fly Ash and Bottom Ash to Landfill								
Loading	-	-	-	1,338,226	1,418,519	1,503,630	1,593,848	1,689,479
Phase 1 - 2.25 Mile Round Trip	-	-	-	2,822,723	2,992,087	3,171,612	3,361,909	3,563,623
Hauling Gypsum to Landfill								
Loading	-	-	-	1,746,384	1,851,167	1,962,237	2,079,972	2,204,770
Phase 1 - 2.25 Mile Round Trip	-	-	-	3,997,156	4,236,986	4,491,205	4,760,677	5,046,318
Landfilling Fly Ash and Bottom Ash	-	-	-	2,408,806	2,553,334	2,706,534	2,868,927	3,041,062
Landfilling Gypsum	-	-	-	3,143,492	3,332,101	3,532,027	3,743,949	3,968,586
Ash/Gypsum Placement QA/QC	-	-	-	54,198	57,450	60,897	64,551	68,424
Maintenance								
Landfills	-	-	-	301,101	319,167	338,317	358,616	380,133
Haul Roads	-	-	-	53,529	56,741	60,145	63,754	67,579
Dust Control	-	-	-	156,126	165,494	175,424	185,949	197,106
TOTAL	**121,349**	**128,630**	**136,348**	**19,003,308**	**20,143,507**	**21,352,117**	**22,633,244**	**23,991,239**

EXHIBIT F

GHENT LANDFILL (PHASE I)

Capital Expenditures ($ million)	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Total
Property Acquisition											
Disposal Site(s)	-	-	4.66	-	-	-	-	-	-	-	**4.66**
Overhead Electric Line(s)	-	-	0.03	-	-	-	-	-	-	-	**0.03**
Buffer Zones	-	-	-	-	2.37	-	-	-	-	-	**2.37**
Higher End House Acquisition	-	-	1.40	-	-	-	-	-	-	-	**1.40**
Engineering, Permits and Fees, and Construction Documents	0.46	2.00	-	-	-	-	-	-	-	-	**2.46**
Stream and Wetland Mitigation	-	-	4.14	-	-	-	-	-	-	-	**4.14**
Ground Water Monitoring System	-	0.27	-	-	-	-	-	-	-	-	**0.27**
Transmission Line Relocation Design, Engineering, and Construction	-	-	-	-	0.82	-	-	-	-	-	**0.82**
CCWD Relocation	-	-	0.12	-	-	-	-	-	-	-	**0.12**
Pump House Fly Ash and Bottom Ash Segregation	-	0.72	-	-	-	-	-	-	-	-	**0.72**
Dry Ash/Pyrites Handling System - Conveyor	-	-	16.29	27.08	38.93	-	-	-	-	-	**82.31**
Dry Gypsum Handling System	-	-	7.79	15.96	13.05	-	-	-	-	-	**36.80**
Gypsum Fines Project	-	0.74	6.30	6.30	-	-	-	-	-	-	**13.34**
Initial Site Preparation											
Clearing, Grubbing, and Site Preparation	-	-	-	0.62	0.65	0.69	-	-	-	-	**1.96**
Stripping and Stockpiling Soil	-	-	-	0.50	0.53	0.56	-	-	-	-	**1.58**
Hauling Topsoil - Phase 1 - 1.0 Mile Round Trip	-	-	-	0.19	0.20	0.21	-	-	-	-	**0.59**
Erosion and Sedimentation Controls	-	-	-	0.06	0.06	0.06	-	-	-	-	**0.18**
Sedimentation Pond	-	-	-	0.33	-	-	-	-	-	-	**0.33**
Collection Channels (Fabriform)	-	-	-	0.36	0.38	0.40	-	-	-	-	**1.15**
Diversion Channels (Riprap)	-	-	-	0.11	0.12	0.12	-	-	-	-	**0.35**
Liner Subgrade Preparation											
Scraping and Hauling - 0.25 Mile Round Trip	-	-	-	0.32	0.33	0.35	-	-	-	-	**1.01**
Excavating	-	-	-	0.15	0.16	0.17	-	-	-	-	**0.49**
Hauling Subgrade - Phase 1 - 1.0 Mile Round Trip	-	-	-	0.31	0.33	0.35	-	-	-	-	**0.99**
Spreading and Compacting Subgrade	-	-	-	0.49	0.52	0.55	-	-	-	-	**1.57**
Subgrade QA/QC	-	-	-	0.24	0.25	0.27	-	-	-	-	**0.76**
Gypsum Dewatering Facility Earthwork											
Excavating	-	-	-	0.73	-	-	-	-	-	-	**0.73**
Hauling Earth - 1.0 Mile Round Trip	-	-	-	1.53	-	-	-	-	-	-	**1.53**
Spreading and Compacting	-	-	-	1.21	-	-	-	-	-	-	**1.21**
Earthwork QA/QC	-	-	-	0.24	-	-	-	-	-	-	**0.24**

GHENT LANDFILL (PHASE I)

Capital Expenditures ($ million)	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Total
Haul Roads											
CCP Disposal On-Landfill Haul Road (60 Feet Wide)	-	-	-	-	0.61	0.05	0.05	0.05	0.05	0.06	**0.87**
CCP Disposal Off-Landfill Haul Road (60 Feet Wide)	-	-	-	0.30	1.03	-	-	-	-	-	**1.33**
Liner											
Landfill - Single Liner System	-	-	-	-	7.00	7.43	7.87	-	-	-	**22.30**
Liner System QA/QC	-	-	-	-	1.23	1.30	1.38	-	-	-	**3.90**
Leachate Collector Line	-	-	-	-	0.19	0.20	0.21	-	-	-	**0.60**
On-Landfill Leachate Trunk Line	-	-	-	-	0.08	0.08	0.09	-	-	-	**0.25**
Off-Landfill Leachate Trunk Line	-	-	-	-	0.07	-	-	-	-	-	**0.07**
Leachate Storage Pond	-	-	-	-	0.29	-	-	-	-	-	**0.29**
Leachate Pump House	-	-	-	-	0.09	-	-	-	-	-	**0.09**
Leachate Pipe Line	-	-	-	-	0.08	-	-	-	-	-	**0.08**
Underdrains - Trunk	-	-	-	-	0.17	0.18	0.19	-	-	-	**0.54**
Underdrains - Collector	-	-	-	-	0.11	0.12	0.12	-	-	-	**0.35**
Cap											
Intermediate Soil Cover	-	-	-	-	-	-	0.28	0.30	0.32	0.34	**1.24**
Cap System	-	-	-	-	-	-	0.22	0.23	0.25	0.26	**0.96**
Cap System QA/QC	-	-	-	-	-	-	0.03	0.03	0.03	0.03	**0.12**
Total	**0.46**	**3.72**	**40.73**	**57.01**	**69.65**	**13.10**	**10.44**	**0.62**	**0.65**	**0.69**	**197.07**
E.ON-US Overheads	0.02	0.13	1.43	2.00	2.44	0.46	0.37	0.02	0.02	0.02	**6.90**
Total with Overheads	**0.47**	**3.85**	**42.16**	**59.01**	**72.09**	**13.56**	**10.81**	**0.64**	**0.68**	**0.72**	**203.97**

EXHIBIT G

Revenue Requirments Summary
Gypsum Disposal at Sterling Materials

			2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Revenue Requirement													
Eligible Plant			$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 203,254,220	$ 203,969,979	$ 203,969,979	$ 248,969,979
Less Gypsum Plant			$ -	$ (14,090,000)	$ (40,060,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (98,110,000)
Revised Eligible Plant			$ 4,321,671	$ 32,388,846	$ 65,425,803	$ 124,467,356	$ 138,023,918	$ 148,831,953	$ 149,468,976	$ 150,144,220	$ 150,859,979	$ 150,859,979	$ 150,859,979
Less Accumulated Depreciation							$ (3,690,414)	$ (7,842,826)	$ (12,013,010)	$ (16,202,034)	$ (20,411,027)	$ (24,620,020)	$ (28,829,013)
Less Deferred Tax Balance							$ (528,683)	$ (2,857,926)	$ (4,921,730)	$ (6,731,945)	$ (8,301,165)	$ (9,641,200)	$ (11,289,441)
Environmental Compliance Rate Base			$ 4,321,671	$ 32,388,846	$ 65,425,803	$ 124,467,356	$ 133,804,821	$ 138,131,202	$ 132,534,236	$ 127,210,241	$ 122,147,788	$ 116,598,759	$ 110,741,525
Rate of Return			11.1%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
Assumed Tons (1.155)	1,000,000		$ 480,509	$ 3,553,056	$ 7,177,211	$ 13,654,069	$ 14,678,389	$ 15,152,993	$ 14,539,006	$ 13,954,963	$ 13,399,612	$ 12,790,884	$ 12,148,345
86.7500% Cubic yards	867,500												
Operating Expenses			$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,556
less Gypsum to On-site Landfill							$ (8,887,032)	$ (9,420,254)	$ (9,985,469)	$ (10,584,598)	$ (11,219,674)	$ (11,892,854)	$ (12,606,425)
Gypsum to Sterling	**$ 9.00**						$ 9,000,000	$ 9,540,000	$ 10,112,400	$ 10,719,144	$ 11,362,293	$ 12,044,030	$ 12,766,672
Net Operating			$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,116,276	$ 20,263,253	$ 21,479,048	$ 22,767,790	$ 24,133,858	$ 25,581,889	$ 27,116,803
Annual Depreciation							$ 3,690,414	$ 4,152,411	$ 4,170,184	$ 4,189,024	$ 4,208,993	$ 4,208,993	$ 4,208,993
Annual Property Tax Expense				$ 6,483	$ 69,718	$ 158,229	$ 266,366	$ 279,017	$ 286,798	$ 279,274	$ 271,751	$ 264,317	$ 264,317
Total OE			$ 84,800	$ 127,832	$ 198,348	$ 294,577	$ 23,073,056	$ 24,694,681	$ 25,936,030	$ 27,236,088	$ 28,614,602	$ 30,055,199	$ 31,590,112
Total E(m) Gypsum to Sterling		$ 453,492,164	$ 565,309	$ 3,680,888	$ 7,375,559	$ 13,948,646	$ 37,751,445	$ 39,847,674	$ 40,475,036	$ 41,191,051	$ 42,014,214	$ 42,846,083	$ 43,738,457
Total E(m) - Project 30 (See below)		$ 555,782,375	$ 565,309	$ 5,226,225	$ 11,769,378	$ 19,773,528	$ 44,705,239	$ 46,600,208	$ 46,976,843	$ 47,458,553	$ 48,044,547	$ 48,653,648	$ 55,312,476
Difference **PVRR**	**7.81%**	**$ (102,290,212)**	$ -	$ (1,545,337)	$ (4,393,819)	$ (5,824,882)	$ (6,953,794)	$ (6,752,534)	$ (6,501,807)	$ (6,267,502)	$ (6,030,333)	$ (5,807,565)	$ (11,574,019)
Date			12/31/2009	12/31/2010	12/31/2011	12/31/2012	12/31/2013	12/31/2014	12/31/2015	12/31/2016	12/31/2017	12/31/2018	12/31/2019

Revenue Requirments Summary
2009 Amended Plan
Project 30 Ghent Landfill Phase I
See Exhibit B

			2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
													Start Phase II
Revenue Requirement													$ 40,000,000
Eligible Plant			$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 203,254,220	$ 203,969,979	$ 203,969,979	$ 248,969,979
Less Gypsum Plant			$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Revised Eligible Plant			$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 203,254,220	$ 203,969,979	$ 203,969,979	$ 248,969,979
Less Accumulated Depreciation							$ (5,110,443)	$ (10,744,623)	$ (16,396,576)	$ (22,067,369)	$ (27,758,131)	$ (33,448,893)	$ (40,395,155)
Less Deferred Tax Balance							$ (732,114)	$ (3,915,341)	$ (6,717,677)	$ (9,168,992)	$ (11,289,232)	$ (13,098,586)	$ (15,818,743)
Environmental Compliance Rate Base			$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 185,291,361	$ 187,281,989	$ 179,464,723	$ 172,017,859	$ 164,922,616	$ 157,422,500	$ 192,756,081
Rate of Return			11.1%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
			$ 480,509	$ 5,098,729	$ 11,571,793	$ 19,480,236	$ 20,326,462	$ 20,544,834	$ 19,687,280	$ 18,870,359	$ 18,092,011	$ 17,269,248	$ 21,145,342
Operating Expenses			$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,555.78
less Gypsum to On-site Landfill							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Gypsum to Sterling							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Net Operating			$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,556
Annual Depreciation							$ 5,110,443	$ 5,634,180	$ 5,651,953	$ 5,670,793	$ 5,690,762	$ 5,690,762	$ 6,946,262
Annual Property Tax Expense				$ 6,483	$ 69,718	$ 158,229	$ 266,366	$ 279,017	$ 286,798	$ 279,274	$ 271,751	$ 264,317	$ 264,317
Total OE			$ 84,800	$ 127,832	$ 198,348	$ 294,577	$ 24,380,117	$ 26,056,704	$ 27,290,868	$ 28,583,311	$ 29,953,752	$ 31,385,792	$ 34,167,134
Total E(m) Gypsum to On-site Landfill as Calculated			$ 565,309	$ 5,226,561	$ 11,770,141	$ 19,774,813	$ 44,706,579	$ 46,601,539	$ 46,978,148	$ 47,453,670	$ 48,045,763	$ 48,655,040	$ 55,312,476
Total E(m) Gypsum to On-site Landfill per KU			$ 565,309	$ 5,226,225	$ 11,769,378	$ 19,773,528	$ 44,705,239	$ 46,600,208	$ 46,976,843	$ 47,458,553	$ 48,044,547	$ 48,653,648	
Calculation Check Difference			$ -	$ 336	$ 763	$ 1,285	$ 1,340	$ 1,331	$ 1,305	$ (4,883)	$ 1,216	$ 1,392	
Site E/F Hauling cost of Ash 2.25 mile round trip							$ 2,822,723	$ 2,992,086	$ 3,171,612	$ 3,361,908	$ 3,563,623	$ 3,777,440	$ 4,004,087
Haul Road Maintenance							$ 53,529	$ 56,741	$ 60,145	$ 63,754	$ 67,579	$ 71,634	$ 75,932
Total							$ 2,876,252	$ 3,048,827	$ 3,231,757	$ 3,425,662	$ 3,631,202	$ 3,849,074	$ 4,080,018
Reduce by 50% for Site M			$ -	$ -	$ -	$ -	$ 1,438,126	$ 1,524,414	$ 1,615,878	$ 1,712,831	$ 1,815,601	$ 1,924,537	$ 2,040,009
Difference **PVRR**	**7.81%**	**$ (21,865,903)**											

Revenue Requirments Summary
Gypsum Disposal at Sterling Materials

			2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
													Start Phase II
Revenue Requirement													$ 40,000,000
Eligible Plant			$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 323,969,979	$ 353,969,979	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
Less Gypsum Plant			$ (133,110,000)	$ (133,110,000)	$ (133,110,000)	$ (133,110,000)	$ (133,110,000)	$ (173,110,000)	$ (203,110,000)	$ (209,140,021)	$ (209,140,021)	$ (209,140,021)	$ (169,140,021)
Revised Eligible Plant			$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 190,859,979
Less Accumulated Depreciation			$ (33,038,006)	$ (37,246,999)	$ (41,455,992)	$ (45,664,985)	$ (49,873,978)	$ (54,082,972)	$ (58,291,965)	$ (62,500,958)	$ (66,709,951)	$ (70,918,944)	$ (76,243,937)
Less Deferred Tax Balance			$ (12,937,683)	$ (14,585,925)	$ (16,234,167)	$ (17,882,408)	$ (19,530,650)	$ (21,178,892)	$ (22,827,133)	$ (24,475,375)	$ (26,123,617)	$ (27,771,858)	$ (29,857,126)
Environmental Compliance Rate Base			$ 104,884,290	$ 99,027,055	$ 93,169,820	$ 87,312,585	$ 81,455,351	$ 75,598,116	$ 69,740,881	$ 63,883,646	$ 58,026,411	$ 52,169,177	$ 84,758,916
Rate of Return			10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
Assumed	Tons (1.155)	1,000,000	$ 11,505,807	$ 10,863,268	$ 10,220,729	$ 9,578,191	$ 8,935,652	$ 8,293,113	$ 7,650,575	$ 7,008,036	$ 6,365,497	$ 5,722,959	$ 9,298,053
86.7500%	Cubic yards	867,500											
Operating Expenses			$ 28,573,949	$ 30,288,386	$ 32,105,689	$ 34,032,031	$ 36,073,952	$ 38,238,390	$ 40,532,693	$ 42,964,655	$ 45,542,534	$ 48,275,086	$ 51,171,591
less Gypsum to On-site Landfill			$ (13,362,811)	$ (14,164,579)	$ (15,014,454)	$ (15,915,321)	$ (16,870,241)	$ (17,882,455)	$ (18,955,402)	$ (20,092,727)	$ (21,298,290)	$ (22,576,188)	$ (23,930,759)
Gypsum to Sterling	**$ 9.00**		$ 13,532,672	$ 14,344,633	$ 15,205,311	$ 16,117,629	$ 17,084,687	$ 18,109,768	$ 19,196,354	$ 20,348,136	$ 21,569,024	$ 22,863,165	$ 24,234,955
Net Operating			$ 28,743,811	$ 30,468,439	$ 32,296,546	$ 34,234,338	$ 36,288,399	$ 38,465,703	$ 40,773,645	$ 43,220,064	$ 45,813,267	$ 48,562,063	$ 51,475,787
Annual Depreciation			$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 5,324,993
Annual Property Tax Expense			$ 322,630	$ 367,985	$ 367,985	$ 367,985	$ 367,985	$ 367,985	$ 419,820	$ 458,696	$ 466,510	$ 466,510	$ 466,510
Total OE			$ 33,275,434	$ 35,045,418	$ 36,873,524	$ 38,811,317	$ 40,865,377	$ 43,042,681	$ 45,402,458	$ 47,887,752	$ 50,488,770	$ 53,237,566	$ 57,267,290
Total E(m) Gypsum to Sterling		$ 453,492,164	$ 44,781,241	$ 45,908,686	$ 47,094,253	$ 48,389,508	$ 49,801,029	$ 51,335,794	$ 53,053,032	$ 54,895,788	$ 56,854,267	$ 58,960,525	$ 66,565,343
Total E(m) - Project 30 (See below)		$ 555,782,375	$ 60,594,706	$ 61,145,021	$ 61,752,847	$ 62,469,712	$ 63,302,156	$ 69,590,749	$ 74,557,268	$ 76,324,534	$ 77,376,925	$ 78,576,175	$ 79,939,378
Difference	**PVRR**	**7.81% $ (102,290,212)**	$ (15,813,466)	$ (15,236,335)	$ (14,658,594)	$ (14,080,204)	$ (13,501,127)	$ (18,254,955)	$ (21,504,236)	$ (21,428,746)	$ (20,522,658)	$ (19,615,651)	$ (13,374,035)
Date			12/31/2020	12/31/2021	12/31/2022	12/31/2023	12/31/2024	12/31/2025	12/31/2026	12/31/2027	12/31/2028	12/31/2029	12/31/2030

Revenue Requirments Summary
2009 Amended Plan
Project 30 Ghent Landfill Phase I
See Exhibit B

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
						Start Phase III					
Revenue Requirement	$ 40,000,000					$ 40,000,000	$ 30,000,000	$ 6,030,021			
Eligible Plant	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 323,969,979	$ 353,969,979	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
Less Gypsum Plant	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Revised Eligible Plant	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 323,969,979	$ 353,969,979	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
Less Accumulated Depreciation	$ (48,317,917)	$ (56,240,679)	$ (64,163,440)	$ (72,086,202)	$ (80,008,964)	$ (89,047,726)	$ (98,923,488)	$ (108,967,487)	$ (119,011,486)	$ (129,055,485)	$ (139,099,485)
Less Deferred Tax Balance	$ (18,921,296)	$ (22,023,850)	$ (25,126,403)	$ (28,228,957)	$ (31,331,510)	$ (34,871,089)	$ (38,738,438)	$ (42,671,668)	$ (46,604,898)	$ (50,538,128)	$ (54,471,358)
Environmental Compliance Rate Base	$ 216,730,766	$ 205,705,451	$ 194,680,135	$ 183,654,820	$ 172,629,505	$ 200,051,164	$ 216,308,054	$ 208,360,845	$ 194,383,616	$ 180,406,387	$ 166,429,157
Rate of Return	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
	$ 23,775,365	$ 22,565,888	$ 21,356,411	$ 20,146,934	$ 18,937,457	$ 21,945,613	$ 23,728,993	$ 22,857,185	$ 21,323,883	$ 19,790,581	$ 18,257,279
Operating Expenses	$ 28,573,949.13	$ 30,288,386.07	$ 32,105,689.24	$ 34,032,030.59	$ 36,073,952.43	$ 38,238,389.57	$ 40,532,692.95	$ 42,964,654.53	$ 45,542,533.80	$ 48,275,085.83	$ 51,171,590.97
less Gypsum to On-site Landfill	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Gypsum to Sterling	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Net Operating	$ 28,573,949	$ 30,288,386	$ 32,105,689	$ 34,032,031	$ 36,073,952	$ 38,238,390	$ 40,532,693	$ 42,964,655	$ 45,542,534	$ 48,275,086	$ 51,171,591
Annual Depreciation	$ 7,922,762	$ 7,922,762	$ 7,922,762	$ 7,922,762	$ 7,922,762	$ 9,038,762	$ 9,875,762	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999
Annual Property Tax Expense	$ 322,630	$ 367,985	$ 367,985	$ 367,985	$ 367,985	$ 419,820	$ 458,696	$ 466,510	$ 466,510	$ 466,510	$ 466,510
Total OE	$ 36,819,341	$ 38,579,133	$ 40,396,436	$ 42,322,778	$ 44,364,700	$ 47,645,137	$ 50,828,274	$ 53,467,349	$ 56,053,043	$ 58,785,595	$ 61,682,100
Total E(m) Gypsum to On-site Landfill as Calculated	$ 60,594,706	$ 61,145,021	$ 61,752,847	$ 62,469,712	$ 63,302,156	$ 69,590,749	$ 74,557,268	$ 76,324,534	$ 77,376,925	$ 78,576,175	$ 79,939,378
Total E(m) Gypsum to On-site Landfill per KU											
Calculation Check Difference											
Site E/F Hauling cost of Ash 2.25 mile round trip	$ 4,244,332	$ 4,498,992	$ 4,768,931	$ 5,055,067	$ 5,358,371	$ 5,679,873	$ 6,020,666	$ 6,381,906	$ 6,764,820	$ 7,170,709	$ 7,600,952
Haul Road Maintenance	$ 80,488	$ 85,317	$ 90,436	$ 95,862	$ 101,614	$ 107,711	$ 114,174	$ 121,024	$ 128,285	$ 135,982	$ 144,141
Total	$ 4,324,820	$ 4,584,309	$ 4,859,367	$ 5,150,929	$ 5,459,985	$ 5,787,584	$ 6,134,839	$ 6,502,930	$ 6,893,105	$ 7,306,692	$ 7,745,093
Reduce by 50% for Site M	$ 2,162,410	$ 2,292,154	$ 2,429,684	$ 2,575,465	$ 2,729,993	$ 2,893,792	$ 3,067,420	$ 3,251,465	$ 3,446,553	$ 3,653,346	$ 3,872,547

Difference **PVRR** **7.81% $ (21,865,903)**

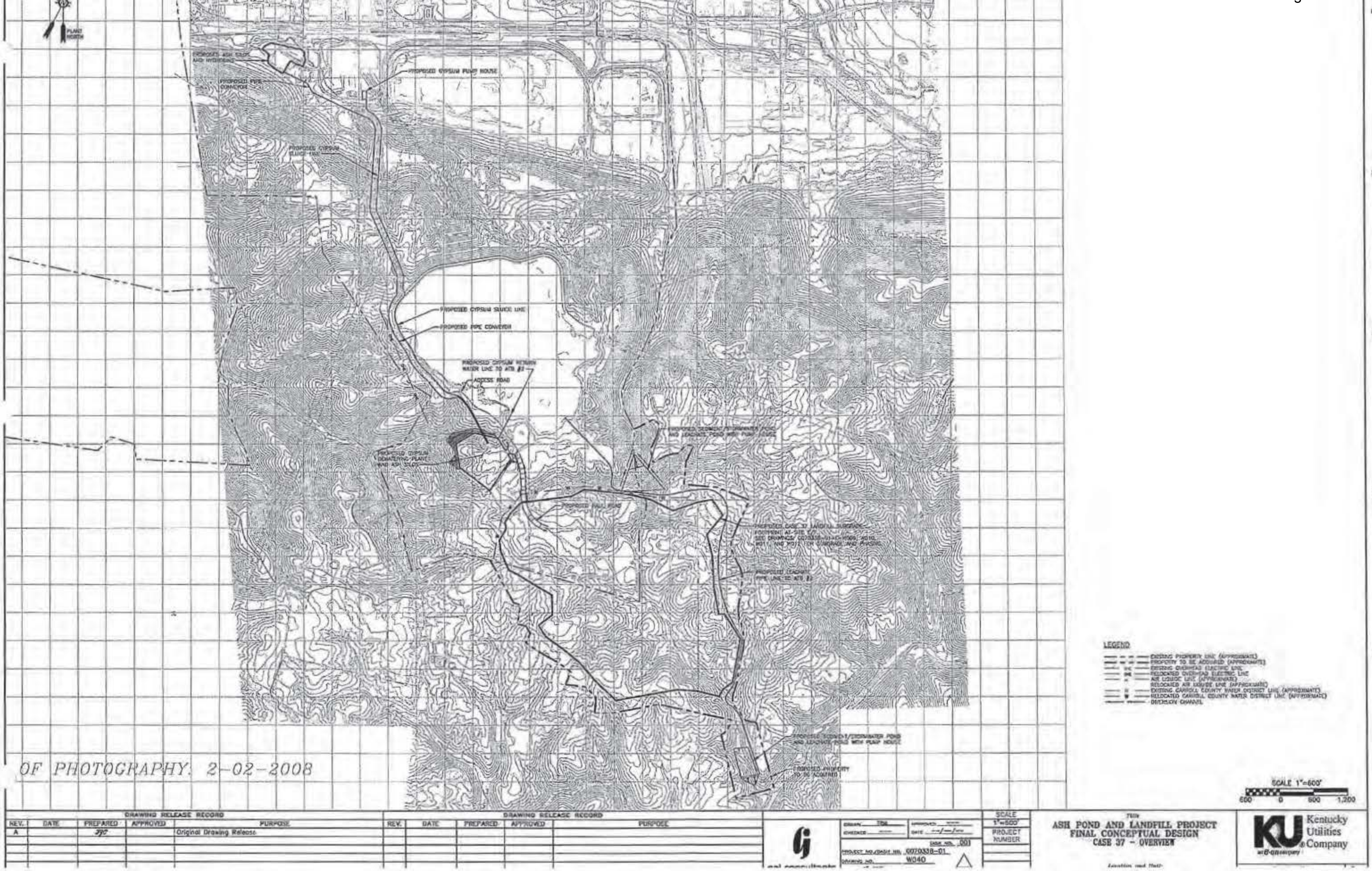
Revenue Requirments Summary
Gypsum Disposal at Sterling Materials

			2031	2032	2033	2034	2035	2036	2037	
Revenue Requirement			$ 40,000,000							
Eligible Plant			$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	
Less Gypsum Plant			$ (129,140,021)	$ (129,140,021)	$ (129,140,021)	$ (129,140,021)	$ (129,140,021)	$ (129,140,021)	$ (129,140,021)	
Revised Eligible Plant			$ 230,859,979	$ 230,859,979	$ 230,859,979	$ 230,859,979	$ 230,859,979	$ 230,859,979	$ 230,859,979	
Less Accumulated Depreciation			$ (82,684,930)	$ (89,125,923)	$ (95,566,916)	$ (102,007,909)	$ (108,448,902)	$ (114,889,895)	$ (121,330,888)	
Less Deferred Tax Balance			$ (32,379,419)	$ (34,901,711)	$ (37,424,004)	$ (39,946,297)	$ (42,468,590)	$ (44,990,883)	$ (47,513,176)	
Environmental Compliance Rate Base			$ 115,795,631	$ 106,832,345	$ 97,869,059	$ 88,905,773	$ 79,942,487	$ 70,979,202	$ 62,015,916	
Rate of Return			10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	
Assumed	Tons (1.155)	1,000,000	$ 12,702,781	$ 11,719,508	$ 10,736,236	$ 9,752,963	$ 8,769,691	$ 7,786,418	$ 6,803,146	
86.7500%	Cubic yards	867,500								
Operating Expenses			$ 54,241,886	$ 57,496,400	$ 60,946,184	$ 64,602,955	$ 68,479,132	$ 72,587,880	$ 76,943,153	
less Gypsum to On-site Landfill			$ (25,366,604)	$ (26,888,601)	$ (28,501,917)	$ (30,212,032)	$ (32,024,754)	$ (33,946,239)	$ (35,983,013)	
Gypsum to Sterling		**$ 9.00**	$ 25,689,052	$ 27,230,396	$ 28,864,219	$ 30,596,072	$ 32,431,837	$ 34,377,747	$ 36,440,412	
Net Operating			$ 54,564,334	$ 57,838,194	$ 61,308,486	$ 64,986,995	$ 68,886,215	$ 73,019,388	$ 77,400,551	
Annual Depreciation			$ 6,440,993	$ 6,440,993	$ 6,440,993	$ 6,440,993	$ 6,440,993	$ 6,440,993	$ 6,440,993	
Annual Property Tax Expense			$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	
Total OE			$ 61,471,837	$ 64,745,697	$ 68,215,989	$ 71,894,498	$ 75,793,718	$ 79,926,890	$ 84,308,054	
Total E(m) Gypsum to Sterling		$ 453,492,164	$ 74,174,618	$ 76,465,205	$ 78,952,224	$ 81,647,461	$ 84,563,408	$ 87,713,309	$ 91,111,200	$ 1,465,701,254
Total E(m) - Project 30 (See below)		$ 555,782,375	$ 81,476,372	$ 83,197,583	$ 85,114,065	$ 87,237,534	$ 89,580,409	$ 92,155,855	$ 94,977,826	$ 1,754,455,070
Difference	**PVRR**	**7.81% $ (102,290,212)**	$ (7,301,754)	$ (6,732,378)	$ (6,161,840)	$ (5,590,073)	$ (5,017,001)	$ (4,442,546)	$ (3,866,626)	$ (288,753,816)
Date			12/31/2031	12/31/2032	12/31/2033	12/31/2034	12/31/2035	12/31/2036	12/31/2037	
										$ (288,753,816)

Revenue Requirments Summary
2009 Amended Plan
Project 30 Ghent Landfill Phase I
See Exhibit B

			2031	2032	2033	2034	2035	2036	2037
Revenue Requirement									
Eligible Plant			$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
Less Gypsum Plant			$ -	$ -	$ -	$ -	$ -	$ -	$ -
Revised Eligible Plant			$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
Less Accumulated Depreciation			$ (149,143,484)	$ (159,187,483)	$ (169,231,482)	$ (179,275,482)	$ (189,319,481)	$ (199,363,480)	$ (209,407,479)
Less Deferred Tax Balance			$ (58,404,588)	$ (62,337,818)	$ (66,271,048)	$ (70,204,279)	$ (74,137,509)	$ (78,070,739)	$ (82,003,969)
Environmental Compliance Rate Base			$ 152,451,928	$ 138,474,699	$ 124,497,469	$ 110,520,240	$ 96,543,010	$ 82,565,781	$ 68,588,552
Rate of Return			10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
			$ 16,723,976	$ 15,190,674	$ 13,657,372	$ 12,124,070	$ 10,590,768	$ 9,057,466	$ 7,524,164
Operating Expenses			$ 54,241,886.43	$ 57,496,399.62	$ 60,946,183.60	$ 64,602,954.61	$ 68,479,131.89	$ 72,587,879.80	$ 76,943,152.59
less Gypsum to On-site Landfill			$ -	$ -	$ -	$ -	$ -	$ -	$ -
Gypsum to Sterling			$ -	$ -	$ -	$ -	$ -	$ -	$ -
Net Operating			$ 54,241,886	$ 57,496,400	$ 60,946,184	$ 64,602,955	$ 68,479,132	$ 72,587,880	$ 76,943,153
Annual Depreciation			$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999
Annual Property Tax Expense			$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510
Total OE			$ 64,752,395	$ 68,006,908	$ 71,456,692	$ 75,113,463	$ 78,989,641	$ 83,098,389	$ 87,453,661
Total E(m) Gypsum to On-site Landfill as Calculated			$ 81,476,372	$ 83,197,583	$ 85,114,065	$ 87,237,534	$ 89,580,409	$ 92,155,855	$ 94,977,826
Total E(m) Gypsum to On-site Landfill per KU									
Calculation Check Difference									
Site E/F	Hauling cost of Ash 2.25 mile round trip		$ 8,057,009	$ 8,540,429	$ 9,052,855	$ 9,596,026	$ 10,171,788	$ 10,782,095	$ 11,429,021
	Haul Road Maintenance		$ 152,790	$ 161,957	$ 171,675	$ 181,975	$ 192,894	$ 204,467	$ 216,735
Total			$ 8,209,799	$ 8,702,387	$ 9,224,530	$ 9,778,002	$ 10,364,682	$ 10,986,563	$ 11,645,756
Reduce by 50% for Site M			$ 4,104,899	$ 4,351,193	$ 4,612,265	$ 4,889,001	$ 5,182,341	$ 5,493,281	$ 5,822,878
Difference	**PVRR**	**7.81% $ (21,865,903)**							

EXHIBIT H


PROPOSED GYPSUM PUMP HOUSE
PROPOSED GYPSUM SLUICE LINE
PROPOSED PIPE CONVEYOR
ACCESS ROAD
PROPOSED PROPERTY TO BE ACQUIRED
OF PHOTOGRAPHY: 2-02-2008
LEGEND
EXISTING PROPERTY LINE (APPROXIMATE)
PROPERTY TO BE ACQUIRED (APPROXIMATE)
DIVERSION CHANNEL
SCALE 1"=600'
600 0 600 1,200
DRAWING RELEASE RECORD
REV. DATE PREPARED APPROVED PURPOSE
A Original Drawing Release
SCALE 1"=600'
PROJECT NUMBER
PROJECT NO./DASH NO. 0070338-01
DRAWING NO. W040
ASH POND AND LANDFILL PROJECT
FINAL CONCEPTUAL DESIGN
CASE 37 - OVERVIEW
Kentucky Utilities Company

From: John Walters(johnwalters@sterlingventures.com)
To: Tapp Sr., Kenny (Electric)
CC:
BCC:
Subject: Ghent
Sent: 07/20/2010 02:13:47 PM -0400 (EDT)
Attachments: ArchiveInfo.htm;

Kenny

I inadvertently omitted Exhibit A when I forwarded you the proposal yesterday. Attached is the proposal including Exhibit A.

John

John W. Walters, Jr.
Sterling Ventures, LLC
376 South Broadway
Lexington, KY 40508
Phone (859) 259-9600
Fax (859) 259-9601
johnwalters@sterlingventures.com

This message and its attachments have been archived. To retrieve, double click the message in the message list.

The following attachments were archived from this message:

- 20100720140938271.pdf

From: John Walters(johnwalters@sterlingventures.com)
To: Tapp Sr., Kenny (Electric)
CC:
BCC:
Subject: Gypsum Disposal
Sent: 11/22/2010 02:10:40 PM -0500 (EST)
Attachments: ArchiveInfo.htm;

Kenny

Attached is the Permit allowing Sterling to receive gypsum from Ghent. Let me know the next steps to moving forward.

John

John W. Walters, Jr.
Sterling Ventures, LLC
376 South Broadway
Lexington, KY 40508
Phone (859) 259-9600
Fax (859) 259-9601
johnwalters@sterlingventures.com

This message and its attachments have been archived. To retrieve, double click the message in the message list.

The following attachments were archived from this message:

- Sterling Ventures Approval letter 11-19-10.pdf
- Sterling Ventures Permit 11-19-2010.pdf

From: Smith, Timothy (Trimble)(/O=LGE/OU=LOUISVILLE/CN=RECIPIENTS/CN=E008722)
To: Pfeiffer, Caryl; Joyce, Jeff; Tapp Sr., Kenny (Electric); Gilbert, Bill G.; Dotson, Mike; Puckett, Paul
CC:
BCC:
Subject: RE: Ghent Gyspum Disposal
Sent: 09/20/2011 03:02:44 PM -0400 (EDT)
Attachments:

Alex Boone, President of Sterling Materials showed up at the plant today and wanted permission to drive around our ash/gypsum facilities. The guard gate called me and I told him we would require a KU representative to be with him and that we didn't have anyone available right now. He said he would just come back another time.

I reviewed their proposal and found it to be full of inaccurate assumptions in how they calculated their $100M savings.

Also, their pricing for storage is also still too high. They want us to pay them $5.50/ton plus pay the $650k to develop a shaft at their mine plus us to be responsible for reclaiming, dewatering, loading and trucking of the material which could very easily take the total price well over the $10.50 ton that they suggest.

Thanks
Tim

From: Pfeiffer, Caryl
Sent: Monday, September 19, 2011 1:41 PM
To: Smith, Timothy; Joyce, Jeff; Tapp Sr., Kenny (Electric); Gilbert, Bill G.; Dotson, Mike; Puckett, Paul
Subject: RE: Ghent Gyspum Disposal

Are we going to get a meeting or conference call together to discuss this?

From: John Walters [mailto:johnwalters@sterlingventures.com]
Sent: Tuesday, September 13, 2011 5:15 PM
To: Smith, Timothy; Joyce, Jeff; Pfeiffer, Caryl; Tapp Sr., Kenny (Electric); Gilbert, Bill G.; Dotson, Mike; Puckett, Paul
Cc: Alex Boone
Subject: Ghent Gyspum Disposal

Please see attached

John W. Walters, Jr.
Sterling Ventures, LLC
376 South Broadway
Lexington, KY 40508
Phone (859) 259-9600
Cell 859-621-3990
Fax (859) 259-9601
johnwalters@sterlingventures.com

From: Wilson, Stuart(/O=LGE/OU=LOUISVILLE/CN=RECIPIENTS/CN=WILSONST)
To: Schram, Chuck
CC: Farhat, Monica
BCC:
Subject: Sterling Ventures Analysis
Sent: 02/28/2012 05:12:10 PM -0500 (EST)
Attachments: 20120220_SterlingVenturesAnalysis_Ghent_CCR.xlsx;

Chuck,

I've attached a workbook that contains our Sterling Ventures analysis. To facilitate your review, I'd recommend stepping through one of the revenue requirements worksheets (the 'landfill only' worksheet is in blue, the 'landfill + sterling' worksheet is in red, and the 'landfill + sterling + limestone' worksheet is in yellow). Everything for each case except the derivation of the capital revenue requirements is contained in these worksheets. The 'ResultsSummary' worksheet contains a summary of each case. There are two things related to this analysis I'd like to follow up on…

1. We're assuming that Sterling is willing to sell limestone for $6.50/ton and transport gypsum for $10.95/ton. The proposal you sent (on 1/20 at 4:43 PM) references $7.00/ton and $10.50/ton for these services, respectively. There are a couple different sources of data it seems. Neither assumption affects our recommendation, but I'd like to make sure we're using the best source.

2. I'm confident we're modeling everything in a way that is entirely consistent with our discussion with Jeff Heun. Still, I'd like to carefully document what we're doing to compute tons of gypsum transported (starting with tons of coal burned at the station) and get Jeff to sign off on it (once and for all).

Please let me know if you have any questions.

Stuart

<<20120220_SterlingVenturesAnalysis_Ghent_CCR.xlsx>>

	A	B	C	D	E	F	G
1	**Assumptions**						
2							
3	Base Year	2012					
4	Inflation Rate - Capital	2.5%					
5	Inflation Rate - O&M	2.0%					
6	Discount Rate	6.7%					
7	Landfill O&M ($/Dry Ton)	5					
8	Cost to Dewater and Transport CCR to Landfill ($/year)	1,320,000					
9	Sterling Storage Cost ($/ton, converted to $2012)	10.74					
10	Sterling Limestone Cost ($/ton, converted to $2012)	6.37					
11	Current Limestone Cost at Ghent	8.92					
12	Estimated Annual Volume for Limestone (Tons)	550,000					
13	Gypsum % Moisture	15%					
14							
15		Landfill	Landfill w/ SV				
16	Gypsum Reuse by Certainteed (Tons)	220,000	220,000				
17	Years of Certainteed Contract	14	14				
18	Gypsum Reuse by Sterling Ventures (%)	0%	100%				
19	Years of Sterling Ventures Contract	50	50				
20							
21	Dry Density Assumptions (Ton / CY)	Wet Storage	Dry Storage				
22	Gypsum	1.013	1.215				
23	Fly Ash	1.013	1.080				
24	Bottom Ash	0.945	1.215				
25							
26	Landfill Capital and Capacity Assumptions						
27		Pre 2012	2012	2013	2014	2015	2016
28	Phase I	76,183,457	173,586,225	45,856,758	4,250,256	700,000	800,000
29	Phase II	0	0	0	0	0	0
30	Phase III	0	0	0	0	0	0
31							
32		CY					
33	Phase I	14.26					

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26												
27	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
28	1,799,908	0	0	0	0	0	0	0	0	0	0	0
29	0	10,200,000	14,200,000	900,000	900,000	1,104,552	1,170,825	1,241,075	1,315,539	0	0	0
30	0	0	0	0	0	0	0	0	0	18,909,069	42,013,964	26,170,830
31												
32												
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26												
27	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
28	0	0	0	0	0	0	0	0	0	0	0	0
29	0	0	0	0	0	0	0	0	0	0	0	0
30	2,098,562	2,224,476	2,357,944	2,499,421	2,649,386	2,808,349	2,976,850	3,155,461	3,344,789	3,545,476	3,758,205	5,379,168
31												
32												
33												

	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY
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24																				
25																				
26																				
27	Total																			
28	303,176,604																			
29	31,031,992																			
30	123,891,950																			
31	458,100,546																			
32																				
33																				

	A	B	C	D	E	F	G
34	Phase II	14.48					
35	Phase III	23.02					
36							
37	Capital Revenue Requirements as % of Initial Investment						
38		2012	2013	2014	2015	2016	2017
39	12 Year Book Life	0.09	0.18	0.17	0.16	0.15	0.15
40							
41		2012	2013	2014	2015	2016	2017
42	24 Year Book Life	0.09	0.14	0.13	0.13	0.12	0.12

	H	I	J	K	L	M	N	O	P	Q	R	S
34												
35												
36												
37												
38	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
39	0.14	0.13	0.13	0.12	0.11	0.11	0.10	0.01	0.01	0.01	0.01	0.01
40												
41	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
42	0.11	0.11	0.10	0.10	0.10	0.09	0.09	0.08	0.08	0.07	0.07	0.07

	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE
34												
35												
36												
37												
38	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
40												
41	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
42	0.06	0.06	0.05	0.05	0.05	0.04	0.04	0.00	0.00	0.00	0.00	0.00

	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY
34																				
35																				
36																				
37																				
38	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061
39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
40																				
41	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061
42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Cell: B11
Comment: MSF:
Size: 1” ¼
Cost per ton: $6.30 (base annual cost) + 0.2 (fuel surcharge)
Transportation cost per ton: $2.42

Cell: A17
Comment: MSF:
20 yrs contract with SYNMAT starting in 2008

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2	**Landfill Only**
3	Revenue Requirements
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18	**Landfill w/ Sterling Ventures' Proposal to Store Gypsum**
19	Revenue Requirements
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	B	C	D	E	F	G	H
1							
2							
3					NPVRR	2012	2013
4	Landfill Fixed O&M				22,453,940		1,346,400
5	Landfill Variable O&M				146,417,408		8,013,931
6	Sterling Variable O&M				0		0
7	Savings in Limestone Costs				0		0
8	Capital Revenue Requirements						
9	Phase I				281,064,801	15,689,785	34,993,864
10	Phase II				21,545,915	0	0
11	Phase III				45,666,778	0	0
12	Total Revenue Requirements				517,148,842	15,689,785	44,354,195
13							
14	Total Dry Tons of CCR Stored (Including CertainTeed)						1,572,002
15	Levelized Cost per Dry Ton Stored				24.51		
16							
17							
18							
19					NPVRR	2012	2013
20	Landfill Fixed O&M				24,128,852		1,346,400
21	Landfill Variable O&M				69,879,761		3,857,745
22	Sterling Variable O&M				219,274,241		10,262,112
23	Savings in Limestone Costs				0		0
24	Capital Revenue Requirements						
25	Phase I				280,182,343	15,689,785	28,195,846
26	Phase II				16,957,940	0	0
27	Phase III				0	0	0
28	Total Revenue Requirements				610,423,137	15,689,785	43,662,102
29							
30	Total Cubic Yards of CCR Disposed						1,572,002
31	Levelized Cost per CY				27.63		
32							

	I	J	K	L	M	N	O	P	Q	R	S	T
1												
2												
3	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
4	1,373,328	1,400,795	1,428,810	1,457,387	1,486,534	1,516,265	1,546,590	1,577,522	1,609,073	1,641,254	1,674,079	1,707,561
5	7,620,859	7,676,267	8,427,515	8,981,075	8,719,544	8,922,232	9,524,488	9,508,913	10,027,228	10,281,265	10,800,190	12,282,000
6	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0
8												
9	38,002,978	36,714,708	35,112,750	33,550,159	32,023,899	30,531,192	29,069,433	27,561,561	25,998,506	24,436,151	22,874,294	7,671,648
10	0	0	0	0	0	0	0	992,827	3,334,254	4,669,985	4,635,696	4,618,987
11	0	0	0	0	0	0	0	0	0	0	0	0
12	46,997,165	45,791,770	44,969,076	43,988,621	42,229,977	40,969,689	40,140,512	39,640,823	40,969,061	41,028,655	39,984,259	26,280,195
13												
14	1,480,596	1,465,106	1,559,275	1,618,985	1,551,946	1,556,054	1,618,068	1,588,526	1,634,636	1,641,972	1,684,285	1,625,804
15												
16												
17												
18												
19	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
20	1,373,328	1,400,795	1,428,810	1,457,387	1,486,534	1,516,265	1,546,590	1,577,522	1,609,073	1,641,254	1,674,079	1,707,561
21	3,687,320	3,731,716	4,026,208	4,264,382	4,171,480	4,258,921	4,523,099	4,527,857	4,754,126	4,868,783	5,095,532	5,036,969
22	9,712,371	9,739,560	10,867,345	11,646,071	11,229,703	11,514,263	12,349,019	12,298,812	13,019,909	13,364,054	14,085,470	17,888,835
23	0	0	0	0	0	0	0	0	0	0	0	0
24												
25	29,854,686	28,941,404	27,858,735	26,816,724	25,812,337	24,842,752	23,905,361	22,978,907	22,053,800	21,128,492	20,202,883	19,276,967
26	0	0	0	0	0	0	0	0	0	0	0	0
27	0	0	0	0	0	0	0	0	0	0	0	0
28	44,627,706	43,813,475	44,181,099	44,184,563	42,700,055	42,132,202	42,324,069	41,383,099	41,436,907	41,002,583	41,057,964	43,910,331
29												
30	1,480,596	1,465,106	1,559,275	1,618,985	1,551,946	1,556,054	1,618,068	1,588,526	1,634,636	1,641,972	1,684,285	1,625,804
31												
32												

	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF
1												
2												
3	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037
4	1,741,712	1,776,546	1,812,077	1,848,319	1,885,285	1,922,991	1,961,451	2,000,680	2,040,693	2,081,507	2,123,137	2,165,600
5	12,645,379	13,471,629	12,604,027	12,652,736	13,000,955	13,550,544	13,454,313	13,919,192	14,705,793	14,383,535	15,186,120	15,658,097
6	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0
8												
9	3,398,008	2,629,606	2,175,299	1,722,693	1,271,816	822,711	375,424	80,967	27,779	18,168	12,717	8,203
10	4,625,437	4,640,493	4,664,250	4,561,106	4,326,481	4,093,490	3,861,573	3,630,523	2,536,930	1,161,661	990,670	824,688
11	0	0	0	1,840,532	7,708,300	14,045,004	16,193,844	15,873,951	15,564,707	15,265,009	14,973,827	14,690,207
12	22,410,536	22,518,274	21,255,653	22,625,386	28,192,838	34,434,740	35,846,604	35,505,312	34,875,902	32,909,879	33,286,472	33,346,795
13												
14	1,641,023	1,714,026	1,572,215	1,547,371	1,558,751	1,592,801	1,550,474	1,572,536	1,628,881	1,561,950	1,616,783	1,634,309
15												
16												
17												
18												
19	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037
20	1,741,712	1,776,546	1,812,077	1,848,319	1,885,285	1,922,991	1,961,451	2,000,680	2,040,693	2,081,507	2,123,137	2,165,600
21	5,181,209	5,524,425	5,170,231	5,192,504	5,332,783	5,559,346	5,519,375	5,704,707	6,032,208	5,900,285	6,230,739	6,420,908
22	18,429,914	19,622,581	18,354,918	18,420,189	18,933,620	19,731,209	19,592,297	20,282,528	21,416,102	20,946,142	22,111,890	22,807,708
23	0	0	0	0	0	0	0	0	0	0	0	0
24												
25	18,316,303	17,336,104	16,356,284	15,376,772	14,397,499	13,418,402	12,439,422	11,611,474	10,974,386	10,380,875	9,791,313	2,359,102
26	1,123,292	3,285,706	4,088,149	3,986,809	3,890,808	3,799,754	3,713,287	3,631,074	3,552,804	3,476,844	3,400,881	3,324,505
27	0	0	0	0	0	0	0	0	0	0	0	0
28	44,792,431	47,545,363	45,781,659	44,824,593	44,439,995	44,431,701	43,225,831	43,230,463	44,016,194	42,785,654	43,657,960	37,077,823
29												
30	1,641,023	1,714,026	1,572,215	1,547,371	1,558,751	1,592,801	1,550,474	1,572,536	1,628,881	1,561,950	1,616,783	1,634,309
31												
32												

	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR
1												
2												
3	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049
4	2,208,912	2,253,090	2,298,152	2,344,115	2,390,997	2,438,817	2,487,594	2,537,345	2,588,092			
5	16,342,405	16,107,614	16,561,272	17,630,870	17,456,943	17,840,586	18,156,036	18,595,031	19,030,181			
6	0	0	0	0	0	0	0	0	0			
7	0	0	0	0	0	0	0	0	0			
8												
9	4,650	2,082	524	0	0	0	0	0	0	0	0	0
10	646,371	468,553	291,262	114,531	65,957	40,235	28,655	18,761	10,744	4,859	1,232	0
11	14,411,040	14,130,296	13,843,703	13,550,490	11,650,276	7,892,352	5,700,333	5,682,407	5,664,170	5,349,032	4,739,599	4,141,148
12	33,613,379	32,961,636	32,994,913	33,640,006	31,564,172	28,211,990	26,372,617	26,833,543	27,293,187	5,353,891	4,740,831	4,141,148
13												
14	1,672,301	1,615,950	1,628,290	1,700,082	1,650,187	1,653,362	1,649,574	1,656,299	1,661,901	0	0	0
15												
16												
17												
18												
19	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049
20	2,208,912	2,253,090	2,298,152	2,344,115	2,390,997	2,438,817	2,487,594	2,537,345	2,588,092	2,639,854	2,692,651	2,746,504
21	6,702,869	6,605,951	6,729,906	7,230,553	7,146,369	7,300,959	7,426,670	7,602,370	7,789,507	7,905,801	8,067,106	8,229,725
22	23,801,147	23,460,725	24,274,800	25,679,607	25,458,018	26,023,577	26,492,067	27,142,173	27,754,546	28,187,683	28,767,751	29,350,372
23	0	0	0	0	0	0	0	0	0	0	0	0
24												
25	408,384	216,137	191,459	167,805	145,200	123,671	103,243	83,946	65,806	48,522	31,784	15,605
26	3,247,708	3,170,478	3,092,805	3,014,677	2,936,083	2,857,012	2,777,452	2,697,390	2,616,814	2,489,037	2,354,503	2,235,993
27	0	0	0	0	0	0	0	0	0	0	0	0
28	36,369,021	35,706,381	36,587,122	38,436,756	38,076,668	38,744,037	39,287,026	40,063,224	40,814,766	41,270,897	41,913,796	42,578,200
29												
30	1,672,301	1,615,950	1,628,290	1,700,082	1,650,187	1,653,362	1,649,574	1,656,299	1,661,901	1,654,265	1,655,080	1,655,424
31												
32												

	AS	AT	AU	AV
1				
2				
3	2050	2051	2052	2053
4				
5				
6				
7				
8				
9	0	0	0	0
10	0	0	0	0
11	3,570,972	3,068,043	2,638,823	2,245,633
12	3,570,972	3,068,043	2,638,823	2,245,633
13				
14	0	0	0	0
15				
16				
17				
18				
19	2050	2051	2052	2053
20	2,801,434	2,857,463	2,914,612	2,972,905
21	8,400,456	8,569,858	8,735,056	8,911,065
22	29,957,982	30,555,270	31,148,426	31,776,891
23	0	0	0	0
24				
25	0	0	0	0
26	2,118,695	1,512,587	747,282	693,713
27	0	0	0	0
28	43,278,567	43,495,178	43,545,375	44,354,574
29				
30	1,656,594	1,656,653	1,655,603	1,655,871
31				
32				

	A
33	
34	**Landfill w/ Sterling Ventures' Proposal to Store Gypsum AND Supply Limestone**
35	Revenue Requirements
36	
37	
38	
39	
40	
41	
42	
43	
44	
45	
46	
47	

	B	C	D	E	F	G	H
33							
34							
35					NPVRR	2012	2013
36	Landfill Fixed O&M				24,128,852		1,346,400
37	Landfill Variable O&M				69,879,761		3,857,745
38	Sterling Variable O&M				219,274,241		10,262,112
39	Savings in Limestone Costs				-25,611,278		-1,429,120
40	Capital Revenue Requirements						
41	Phase I				280,182,343	15,689,785	28,195,846
42	Phase II				16,957,940	0	0
43	Phase III				0	0	0
44	Total Revenue Requirements				584,811,859	15,689,785	42,232,982
45							
46	Total Cubic Yards of CCR Disposed						1,572,002
47	Levelized Cost per CY				26.47		

	I	J	K	L	M	N	O	P	Q	R	S	T
33												
34												
35	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
36	1,373,328	1,400,795	1,428,810	1,457,387	1,486,534	1,516,265	1,546,590	1,577,522	1,609,073	1,641,254	1,674,079	1,707,561
37	3,687,320	3,731,716	4,026,208	4,264,382	4,171,480	4,258,921	4,523,099	4,527,857	4,754,126	4,868,783	5,095,532	5,036,969
38	9,712,371	9,739,560	10,867,345	11,646,071	11,229,703	11,514,263	12,349,019	12,298,812	13,019,909	13,364,054	14,085,470	17,888,835
39	-1,457,702	-1,486,856	-1,516,594	-1,546,925	-1,577,864	-1,609,421	-1,641,610	-1,674,442	-1,707,931	-1,742,089	-1,776,931	-1,812,470
40												
41	29,854,686	28,941,404	27,858,735	26,816,724	25,812,337	24,842,752	23,905,361	22,978,907	22,053,800	21,128,492	20,202,883	19,276,967
42	0	0	0	0	0	0	0	0	0	0	0	0
43	0	0	0	0	0	0	0	0	0	0	0	0
44	43,170,003	42,326,619	42,664,505	42,637,637	41,122,191	40,522,780	40,682,459	39,708,657	39,728,976	39,260,494	39,281,033	42,097,861
45												
46	1,480,596	1,465,106	1,559,275	1,618,985	1,551,946	1,556,054	1,618,068	1,588,526	1,634,636	1,641,972	1,684,285	1,625,804
47												

	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF
33												
34												
35	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037
36	1,741,712	1,776,546	1,812,077	1,848,319	1,885,285	1,922,991	1,961,451	2,000,680	2,040,693	2,081,507	2,123,137	2,165,600
37	5,181,209	5,524,425	5,170,231	5,192,504	5,332,783	5,559,346	5,519,375	5,704,707	6,032,208	5,900,285	6,230,739	6,420,908
38	18,429,914	19,622,581	18,354,918	18,420,189	18,933,620	19,731,209	19,592,297	20,282,528	21,416,102	20,946,142	22,111,890	22,807,708
39	-1,848,719	-1,885,693	-1,923,407	-1,961,876	-2,001,113	-2,041,135	-2,081,958	-2,123,597	-2,166,069	-2,209,390	-2,253,578	-2,298,650
40												
41	18,316,303	17,336,104	16,356,284	15,376,772	14,397,499	13,418,402	12,439,422	11,611,474	10,974,386	10,380,875	9,791,313	2,359,102
42	1,123,292	3,285,706	4,088,149	3,986,809	3,890,808	3,799,754	3,713,287	3,631,074	3,552,804	3,476,844	3,400,881	3,324,505
43	0	0	0	0	0	0	0	0	0	0	0	0
44	42,943,712	45,659,670	43,858,252	42,862,718	42,438,882	42,390,565	41,143,873	41,106,866	41,850,125	40,576,263	41,404,382	34,779,173
45												
46	1,641,023	1,714,026	1,572,215	1,547,371	1,558,751	1,592,801	1,550,474	1,572,536	1,628,881	1,561,950	1,616,783	1,634,309
47												

	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR
33												
34												
35	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049
36	2,208,912	2,253,090	2,298,152	2,344,115	2,390,997	2,438,817	2,487,594	2,537,345	2,588,092	2,639,854	2,692,651	2,746,504
37	6,702,869	6,605,951	6,729,906	7,230,553	7,146,369	7,300,959	7,426,670	7,602,370	7,789,507	7,905,801	8,067,106	8,229,725
38	23,801,147	23,460,725	24,274,800	25,679,607	25,458,018	26,023,577	26,492,067	27,142,173	27,754,546	28,187,683	28,767,751	29,350,372
39	-2,344,623	-2,391,515	-2,439,346	-2,488,133	-2,537,895	-2,588,653	-2,640,426	-2,693,235	-2,747,099	-2,802,041	-2,858,082	-2,915,244
40												
41	408,384	216,137	191,459	167,805	145,200	123,671	103,243	83,946	65,806	48,522	31,784	15,605
42	3,247,708	3,170,478	3,092,805	3,014,677	2,936,083	2,857,012	2,777,452	2,697,390	2,616,814	2,489,037	2,354,503	2,235,993
43	0	0	0	0	0	0	0	0	0	0	0	0
44	34,024,398	33,314,865	34,147,776	35,948,624	35,538,773	36,155,384	36,646,600	37,369,989	38,067,667	38,468,856	39,055,714	39,662,956
45												
46	1,672,301	1,615,950	1,628,290	1,700,082	1,650,187	1,653,362	1,649,574	1,656,299	1,661,901	1,654,265	1,655,080	1,655,424
47												

	AS	AT	AU	AV
33				
34				
35	2050	2051	2052	2053
36	2,801,434	2,857,463	2,914,612	2,972,905
37	8,400,456	8,569,858	8,735,056	8,911,065
38	29,957,982	30,555,270	31,148,426	31,776,891
39	-2,973,549	-3,033,020	-3,093,680	-3,155,554
40				
41	0	0	0	0
42	2,118,695	1,512,587	747,282	693,713
43	0	0	0	0
44	40,305,018	40,462,158	40,451,695	41,199,020
45				
46	1,656,594	1,656,653	1,655,603	1,655,871
47				

	A	B	C	D	E	F
1	**Landfill Only**					
2						
3	**Coal Combustion Residuals (Tons)**		2008	2009	2010	2011
4						
5		Dry Gypsum	684,116	829,878	1,049,524	1,060,429
6		Fly Ash	551,632	521,554	569,529	565,950
7		Bottom Ash	137,908	130,388	142,382	141,487
8		Total CCR Produced	1,373,657	1,481,821	1,761,435	1,767,867
9						
10	**Storage Capacity (Cubic Yards)**					
11						2011
12		Ash Treatment Basin #2 (ATB #2) - Existing				
13		Beginning Capacity				2,796,541
14		Bottom Ash Production				149,722
15		Fly Ash				558,963
16		Capacity Additions				
17		Ending Available Capacity				2,087,856
18		Years of Remaining Capacity at ATB #2				4.6
19						
20		Gypsum Stack - Existing				
21		Beginning Capacity (millions CY)				2,990,054
22		Gypsum				1,047,338
23		Certainteed Gypsum Reuse				-217,284
24		Sterling Ventures Gyspum Reuse				0
25		Ending Available Capacity (millions CY)				2,160,000
26						
27		New Landfill				
28		Beginning Capacity (millions CY)				
29		Bottom Ash Production				
30		Fly Ash				
31		Gypsum				
32		Certainteed Gypsum Reuse				
33		Sterling Ventures Gyspum Reuse				

	G	H	I	J	K	L	M	N	O	P	Q
1											
2											
3	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
4											
5	967,572	1,089,125	1,029,611	1,016,700	1,087,391	1,129,091	1,081,806	1,086,088	1,128,399	1,108,005	1,139,970
6	530,106	596,987	559,500	555,203	587,003	609,437	584,588	585,104	609,130	597,857	615,355
7	132,526	149,247	139,875	138,801	146,751	152,359	146,147	146,276	152,283	149,464	153,839
8	1,630,204	1,835,359	1,728,986	1,710,704	1,821,144	1,890,887	1,812,541	1,817,468	1,889,812	1,855,327	1,909,164
9											
10											
11	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
12											
13	2,087,856	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055
14	140,240										
15	523,561										
16											
17	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055
18	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
19											
20											
21	2,160,000	1,421,658	1,421,658	1,421,658	1,421,658	1,421,658	1,421,658	1,421,658	1,421,658	1,421,658	1,421,658
22	955,626										
23	-217,284										
24	0										
25	1,421,658	1,421,658	1,421,658	1,421,658	1,421,658	1,421,658	1,421,658	1,421,658	1,421,658	1,421,658	1,421,658
26											
27											
28		14,260,000	12,905,282	11,641,970	10,394,148	9,052,156	7,650,455	6,315,793	4,977,023	3,576,238	16,684,997
29		122,837	115,124	114,239	120,782	125,399	120,286	120,392	125,335	123,016	126,616
30		552,766	518,056	514,077	543,521	564,294	541,285	541,763	564,009	553,572	569,773
31		896,399	847,416	836,790	894,972	929,293	890,376	893,899	928,724	911,938	938,247
32		-217,284	-217,284	-217,284	-217,284	-217,284	-217,284	-217,284	-217,284	-217,284	-217,284
33		0	0	0	0	0	0	0	0	0	0

	R	S	T	U	V	W	X	Y	Z	AA	AB
1											
2											
3	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
4											
5	1,145,494	1,174,862	1,134,131	1,145,524	1,195,740	1,096,561	1,078,883	1,087,211	1,110,794	1,081,347	1,097,493
6	617,819	633,851	611,797	616,960	644,947	591,767	582,671	586,670	599,606	583,621	591,373
7	154,455	158,463	152,949	154,240	161,237	147,942	145,668	146,667	149,902	145,905	147,843
8	1,917,768	1,967,175	1,898,877	1,916,723	2,001,924	1,836,270	1,807,222	1,820,548	1,860,302	1,810,873	1,836,709
9											
10											
11	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
12											
13	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055
14											
15											
16											
17	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055
18	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
19											
20											
21	1,421,658	1,421,658	1,421,658	1,421,658	1,421,658	1,421,658	1,421,658	1,421,658	1,421,658	1,421,658	1,421,658
22											
23											
24											
25	1,421,658	1,421,658	1,421,658	1,421,658	1,421,658	1,421,658	1,421,658	1,421,658	1,421,658	1,421,658	1,421,658
26											
27											
28	15,267,644	13,842,956	12,375,955	10,750,151	9,109,128	7,395,101	5,822,887	4,275,515	25,736,765	24,143,964	22,593,490
29	127,123	130,422	125,884	126,946	132,705	121,763	119,891	120,714	123,376	120,087	121,682
30	572,055	586,899	566,479	571,259	597,173	547,932	539,510	543,213	555,191	540,390	547,568
31	942,794	966,964	933,441	942,818	984,148	902,520	887,970	894,824	914,234	889,998	903,286
32	-217,284	-217,284	0	0	0	0	0	0	0	0	0
33	0	0	0	0	0	0	0	0	0	0	0

	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM
1											
2											
3	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044
4											
5	1,136,109	1,089,390	1,127,470	1,140,146	1,166,478	1,127,249	1,143,495	1,185,951	1,152,664	1,155,167	1,152,905
6	613,078	587,913	608,670	614,938	629,359	608,095	607,184	639,745	619,864	620,849	619,147
7	153,270	146,978	152,168	153,734	157,340	152,024	151,796	159,936	154,966	155,212	154,787
8	1,902,456	1,824,281	1,888,307	1,908,819	1,953,176	1,887,368	1,902,475	1,985,632	1,927,494	1,931,229	1,926,840
9											
10											
11	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044
12											
13	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055
14											
15											
16											
17	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055
18	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
19											
20											
21	1,421,658	1,421,658	1,421,658	1,421,658	1,421,658	1,421,658	1,421,658	1,421,658	1,421,658	1,421,658	1,421,658
22											
23											
24											
25	1,421,658	1,421,658	1,421,658	1,421,658	1,421,658	1,421,658	1,421,658	1,421,658	1,421,658	1,421,658	1,421,658
26											
27											
28	21,020,954	19,392,073	17,830,122	16,213,340	14,579,030	12,906,729	11,290,778	9,662,488	7,962,406	6,312,219	4,658,856
29	126,148	120,970	125,241	126,530	129,498	125,122	124,935	131,635	127,544	127,747	127,397
30	567,665	544,364	563,583	569,387	582,739	563,051	562,207	592,356	573,948	574,860	573,285
31	935,069	896,617	927,959	938,392	960,064	927,777	941,148	976,091	948,695	950,755	948,893
32	0	0	0	0	0	0	0	0	0	0	0
33	0	0	0	0	0	0	0	0	0	0	0

	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY
1												
2												
3	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056
4												
5	1,158,036	1,160,945	1,155,943	1,156,599	1,156,886	1,157,682	1,157,611	1,156,944	1,157,145	1,157,254	1,157,327	1,157,256
6	621,358	624,193	621,082	621,326	621,421	621,876	621,980	621,537	621,628	621,688	621,742	621,715
7	155,339	156,048	155,271	155,331	155,355	155,469	155,495	155,384	155,407	155,422	155,435	155,429
8	1,934,734	1,941,186	1,932,296	1,933,257	1,933,662	1,935,027	1,935,086	1,933,866	1,934,180	1,934,364	1,934,504	1,934,400
9												
10												
11	2045	2046	2047	2048	2049	2050	2051	2052	2053			
12												
13	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055			
14												
15												
16												
17	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055			
18	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1			
19												
20												
21	1,421,658	1,421,658	1,421,658	1,421,658	1,421,658	1,421,658	1,421,658	1,421,658	1,421,658			
22												
23												
24												
25	1,421,658	1,421,658	1,421,658	1,421,658	1,421,658	1,421,658	1,421,658	1,421,658	1,421,658			
26												
27												
28	3,009,282	1,352,983	-308,918	-308,918	-308,918	-308,918	-308,918	-308,918	-308,918			
29	127,851	128,435										
30	575,331	577,956										
31	953,116	955,510										
32	0	0										
33	0	0										

	AZ	BA	BB	BC	BD	BE	BF	BG	BH	BI	BJ	BK
1												
2												
3	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068
4												
5	1,157,185	1,157,233	1,157,251	1,157,251	1,157,235	1,157,231	1,157,240	1,157,242	1,157,240	1,157,238	1,157,238	1,157,239
6	621,662	621,687	621,699	621,701	621,693	621,688	621,694	621,695	621,694	621,693	621,693	621,694
7	155,416	155,422	155,425	155,425	155,423	155,422	155,423	155,424	155,424	155,423	155,423	155,423
8	1,934,263	1,934,342	1,934,375	1,934,377	1,934,351	1,934,341	1,934,357	1,934,360	1,934,357	1,934,354	1,934,354	1,934,356
9												
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31												
32												
33												

	BL	BM	BN	BO	BP	BQ	BR	BS	BT	BU	BV	BW
1												
2												
3	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080
4												
5	1,157,239	1,157,239	1,157,239	1,157,239	1,157,239	1,157,239	1,157,239	1,157,239	1,157,239	1,157,239	1,157,239	1,157,239
6	621,694	621,693	621,693	621,693	621,693	621,693	621,693	621,693	621,693	621,693	621,693	621,693
7	155,423	155,423	155,423	155,423	155,423	155,423	155,423	155,423	155,423	155,423	155,423	155,423
8	1,934,356	1,934,356	1,934,355	1,934,356	1,934,356	1,934,356	1,934,356	1,934,356	1,934,356	1,934,356	1,934,356	1,934,356
9												
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31												
32												
33												

	BX	BY	BZ	CA	CB	CC	CD	CE	CF	CG	CH	CI
1												
2												
3	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092
4												
5	1,157,239	1,157,239	1,157,239	1,157,239	1,157,239	1,157,239	1,157,239	1,157,239	1,157,239	1,157,239	1,157,239	1,157,239
6	621,693	621,693	621,693	621,693	621,693	621,693	621,693	621,693	621,693	621,693	621,693	621,693
7	155,423	155,423	155,423	155,423	155,423	155,423	155,423	155,423	155,423	155,423	155,423	155,423
8	1,934,356	1,934,356	1,934,356	1,934,356	1,934,356	1,934,356	1,934,356	1,934,356	1,934,356	1,934,356	1,934,356	1,934,356
9												
10												
11												
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30												
31												
32												
33												

	CJ	CK	CL	CM	CN	CO	CP	CQ
1								
2								
3	2093	2094	2095	2096	2097	2098	2099	2100
4								
5	1,157,239	1,157,239	1,157,239	1,157,239	1,157,239	1,157,239	1,157,239	1,157,239
6	621,693	621,693	621,693	621,693	621,693	621,693	621,693	621,693
7	155,423	155,423	155,423	155,423	155,423	155,423	155,423	155,423
8	1,934,356	1,934,356	1,934,356	1,934,356	1,934,356	1,934,356	1,934,356	1,934,356
9								
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33								

	A	B	C	D	E	F
34		Capacity Additions				
35		Ending Available Capacity (millions CY)				
36		Years of Remaining Capacity at Landfill				
37						
38		Years of Remaining Capacity at Trimble CCR Storage				3
39		Total Dry Tons of CCR Landfilled				
40		Weight of Wet Tons Transported by Sterling				
41						
42						
43	**Revenue Requirements**					NPVRR
44		Landfill Fixed O&M				22,453,940
45		Landfill Variable O&M				146,417,408
46		Sterling Variable O&M				0
47		Savings in Limestone Costs				0
48		Capital Revenue Requirements				
49		Phase I				281,064,801
50		Phase II				21,545,915
51		Phase III				45,666,778
52		Total Revenue Requirements				517,148,842
53						
54		Total Dry Tons of CCR Stored (Including CertainTeed)				
55		Levelized Cost per Dry Ton Stored				24.51

	G	H	I	J	K	L	M	N	O	P	Q
34		0	0	0	0	0	0	0	0	14,480,000	0
35		12,905,282	11,641,970	10,394,148	9,052,156	7,650,455	6,315,793	4,977,023	3,576,238	16,684,997	15,267,644
36		9	8	7	6	5	4	3	2	11	10
37											
38	2	10	9	9	8	7	6	5	4	12	11
39		1,571,359	1,464,986	1,446,704	1,557,144	1,626,887	1,548,541	1,553,468	1,625,812	1,591,327	1,645,164
40		0	0	0	0	0	0	0	0	0	0
41											
42											
43	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
44		1,346,400	1,373,328	1,400,795	1,428,810	1,457,387	1,486,534	1,516,265	1,546,590	1,577,522	1,609,073
45		8,013,931	7,620,859	7,676,267	8,427,515	8,981,075	8,719,544	8,922,232	9,524,488	9,508,913	10,027,228
46		0	0	0	0	0	0	0	0	0	0
47		0	0	0	0	0	0	0	0	0	0
48											
49	15,689,785	34,993,864	38,002,978	36,714,708	35,112,750	33,550,159	32,023,899	30,531,192	29,069,433	27,561,561	25,998,506
50	0	0	0	0	0	0	0	0	0	992,827	3,334,254
51	0	0	0	0	0	0	0	0	0	0	0
52	15,689,785	44,354,195	46,997,165	45,791,770	44,969,076	43,988,621	42,229,977	40,969,689	40,140,512	39,640,823	40,969,061
53											
54		1,572,002	1,480,596	1,465,106	1,559,275	1,618,985	1,551,946	1,556,054	1,618,068	1,588,526	1,634,636
55											

	R	S	T	U	V	W	X	Y	Z	AA	AB
34	0	0	0	0	0	0	0	23,020,000	0	0	0
35	13,842,956	12,375,955	10,750,151	9,109,128	7,395,101	5,822,887	4,275,515	25,736,765	24,143,964	22,593,490	21,020,954
36	9	8	7	6	5	4	3	18	17	15	14
37											
38	10	9	8	7	6	6	5	18	17	16	15
39	1,653,768	1,703,175	1,898,877	1,916,723	2,001,924	1,836,270	1,807,222	1,820,548	1,860,302	1,810,873	1,836,709
40	0	0	0	0	0	0	0	0	0	0	0
41											
42											
43	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
44	1,641,254	1,674,079	1,707,561	1,741,712	1,776,546	1,812,077	1,848,319	1,885,285	1,922,991	1,961,451	2,000,680
45	10,281,265	10,800,190	12,282,000	12,645,379	13,471,629	12,604,027	12,652,736	13,000,955	13,550,544	13,454,313	13,919,192
46	0	0	0	0	0	0	0	0	0	0	0
47	0	0	0	0	0	0	0	0	0	0	0
48											
49	24,436,151	22,874,294	7,671,648	3,398,008	2,629,606	2,175,299	1,722,693	1,271,816	822,711	375,424	80,967
50	4,669,985	4,635,696	4,618,987	4,625,437	4,640,493	4,664,250	4,561,106	4,326,481	4,093,490	3,861,573	3,630,523
51	0	0	0	0	0	0	1,840,532	7,708,300	14,045,004	16,193,844	15,873,951
52	41,028,655	39,984,259	26,280,195	22,410,536	22,518,274	21,255,653	22,625,386	28,192,838	34,434,740	35,846,604	35,505,312
53											
54	1,641,972	1,684,285	1,625,804	1,641,023	1,714,026	1,572,215	1,547,371	1,558,751	1,592,801	1,550,474	1,572,536
55											

	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM
34											
35	19,392,073	17,830,122	16,213,340	14,579,030	12,906,729	11,290,778	9,662,488	7,962,406	6,312,219	4,658,856	3,009,282
36	13	12	11	10	8	7	6	5	4	3	2
37											
38	14	13	12	11	10	9	8	7	6	5	4
39	1,902,456	1,824,281	1,888,307	1,908,819	1,953,176	1,887,368	1,902,475	1,985,632	1,927,494	1,931,229	1,926,840
40	0	0	0	0	0	0	0	0	0	0	0
41											
42											
43	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044
44	2,040,693	2,081,507	2,123,137	2,165,600	2,208,912	2,253,090	2,298,152	2,344,115	2,390,997	2,438,817	2,487,594
45	14,705,793	14,383,535	15,186,120	15,658,097	16,342,405	16,107,614	16,561,272	17,630,870	17,456,943	17,840,586	18,156,036
46	0	0	0	0	0	0	0	0	0	0	0
47	0	0	0	0	0	0	0	0	0	0	0
48											
49	27,779	18,168	12,717	8,203	4,650	2,082	524	0	0	0	0
50	2,536,930	1,161,661	990,670	824,688	646,371	468,553	291,262	114,531	65,957	40,235	28,655
51	15,564,707	15,265,009	14,973,827	14,690,207	14,411,040	14,130,296	13,843,703	13,550,490	11,650,276	7,892,352	5,700,333
52	34,875,902	32,909,879	33,286,472	33,346,795	33,613,379	32,961,636	32,994,913	33,640,006	31,564,172	28,211,990	26,372,617
53											
54	1,628,881	1,561,950	1,616,783	1,634,309	1,672,301	1,615,950	1,628,290	1,700,082	1,650,187	1,653,362	1,649,574
55											

	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY
34												
35	1,352,983	-308,918	-308,918	-308,918	-308,918	-308,918	-308,918	-308,918	-308,918			
36	1											
37												
38	3	2	2	2	2	2	2	2	2			
39	1,934,734	1,941,186										
40	0	0	0	0	0	0	0	0	0			
41												
42												
43	2045	2046										
44	2,537,345	2,588,092										
45	18,595,031	19,030,181										
46	0	0										
47	0	0										
48												
49	0	0	0	0	0	0	0	0	0	0	0	0
50	18,761	10,744	4,859	1,232	0	0	0	0	0	0	0	0
51	5,682,407	5,664,170	5,349,032	4,739,599	4,141,148	3,570,972	3,068,043	2,638,823	2,245,633	1,865,713	1,498,925	1,145,520
52	26,833,543	27,293,187	5,353,891	4,740,831	4,141,148	3,570,972	3,068,043	2,638,823	2,245,633	1,865,713	1,498,925	1,145,520
53												
54	1,656,299	1,661,901	0	0	0	0	0	0	0			
55												

	AZ	BA	BB	BC	BD	BE	BF	BG	BH	BI	BJ	BK
34												
35												
36												
37												
38												
39												
40												
41												
42												
43												
44												
45												
46												
47												
48												
49	0	0	0	0	0	0	0	0	0	0	0	0
50	0	0	0	0	0	0	0	0	0	0	0	0
51	805,834	480,209	168,996	130,415	96,576	67,599	43,606	24,719	11,069	2,784	0	0
52	805,834	480,209	168,996	130,415	96,576	67,599	43,606	24,719	11,069	2,784	0	0
53												
54												
55												

	BL	BM	BN	BO	BP	BQ	BR	BS	BT	BU	BV	BW
34												
35												
36												
37												
38												
39												
40												
41												
42												
43												
44												
45												
46												
47												
48												
49	0	0	0	0	0	0	0	0	0	0	0	0
50	0	0	0	0	0	0	0	0	0	0	0	0
51	0	0	0	0	0	0	0	0	0	0	0	0
52	0	0	0	0	0	0	0	0	0	0	0	0
53												
54												
55												

	BX	BY	BZ	CA	CB	CC	CD	CE	CF	CG	CH	CI
34												
35												
36												
37												
38												
39												
40												
41												
42												
43												
44												
45												
46												
47												
48												
49	0	0	0	0	0	0	0	0	0	0	0	0
50	0	0	0	0	0	0	0	0	0	0	0	0
51	0	0	0	0	0	0	0	0	0	0	0	0
52	0	0	0	0	0	0	0	0	0	0	0	0
53												
54												
55												

	CJ	CK	CL	CM	CN	CO	CP	CQ
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43								
44								
45								
46								
47								
48								
49	0	0	0	0	0	0	0	0
50	0	0	0	0	0	0	0	0
51	0	0	0	0	0	0	0	0
52	0	0	0	0	0	0	0	0
53								
54								
55								

Cell: F13
Comment: Sebourn:
2,566,289 CY per results from Project Engineerg as of Apr-11 ATB#2 survey results per Jeff Heun's email. Add back 8/12 of 2011 results for May-December 2011.

Cell: B14
Comment: Monica Farhat:
15,000 tons to 25,000 tons of BA reuse per year till 2014. TC2 BA will be used to contruct 6-1 and 101

Cell: G16
Comment: Monica Farhat:
Removed 140,000 tons of BA to expand BAP and BA produced by TC2 will be used to construct 6-1 and 10-1

Cell: F21
Comment: MSF:
2.16 MCY remaining as of 1/1/2012 per email from T Guelda. Add Gypsum CCP back to estimate 2011 Beg Capacity

	A	B
1	**Landfill w/ Sterling Ventures' Proposal to Store Gypsum**	
2		
3	**Coal Combustion Residuals (Tons)**	
4		
5		Dry Gypsum
6		Fly Ash
7		Bottom Ash
8		Total CCR Produced
9		
10	**Storage Capacity (Cubic Yards)**	
11		
12		Ash Treatment Basin #2 (ATB #2) - Existing
13		Beginning Capacity
14		Bottom Ash Production
15		Fly Ash
16		Capacity Additions
17		Ending Available Capacity
18		Years of Remaining Capacity at ATB #2
19		
20		Gypsum Stack - Existing
21		Beginning Capacity (millions CY)
22		Gypsum
23		Certainteed Gypsum Reuse
24		Sterling Ventures Gyspum Reuse
25		Ending Available Capacity (millions CY)
26		
27		New Landfill
28		Beginning Capacity (millions CY)
29		Bottom Ash Production
30		Fly Ash
31		Gypsum
32		Certainteed Gypsum Reuse
33		Sterling Ventures Gyspum Reuse

	C	D	E	F	G	H	I	J	K	L	M
1											
2											
3	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
4											
5	684,116	829,878	1,049,524	1,060,429	967,572	1,089,125	1,029,611	1,016,700	1,087,391	1,129,091	1,081,806
6	551,632	521,554	569,529	565,950	530,106	596,987	559,500	555,203	587,003	609,437	584,588
7	137,908	130,388	142,382	141,487	132,526	149,247	139,875	138,801	146,751	152,359	146,147
8	1,373,657	1,481,821	1,761,435	1,767,867	1,630,204	1,835,359	1,728,986	1,710,704	1,821,144	1,890,887	1,812,541
9											
10											
11				2011	2012	2013	2014	2015	2016	2017	2018
12											
13				2,796,541	2,087,856	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055
14				149,722	140,240						
15				558,963	523,561						
16											
17				2,087,856	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055
18				4.6	2.1	2.1	2.1	2.1	2.1	2.1	2.1
19											
20											
21				2,990,054	2,979,806	2,970,691	2,970,691	2,970,691	2,970,691	2,970,691	2,970,691
22				1,047,338	955,626						
23				-217,284	-217,284						
24				-819,806	-729,227						
25				2,979,806	2,970,691	2,970,691	2,970,691	2,970,691	2,970,691	2,970,691	2,970,691
26											
27											
28						14,260,000	13,576,013	12,935,054	12,299,090	11,626,420	10,927,938
29						122,837	115,124	114,239	120,782	125,399	120,286
30						552,766	518,056	514,077	543,521	564,294	541,285
31						896,399	847,416	836,790	894,972	929,293	890,376
32						-217,284	-217,284	-217,284	-217,284	-217,284	-217,284
33						-670,731	-622,353	-611,858	-669,321	-703,219	-664,782

	N	O	P	Q	R	S	T	U	V	W	X
1											
2											
3	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
4											
5	1,086,088	1,128,399	1,108,005	1,139,970	1,145,494	1,174,862	1,134,131	1,145,524	1,195,740	1,096,561	1,078,883
6	585,104	609,130	597,857	615,355	617,819	633,851	611,797	616,960	644,947	591,767	582,671
7	146,276	152,283	149,464	153,839	154,455	158,463	152,949	154,240	161,237	147,942	145,668
8	1,817,468	1,889,812	1,855,327	1,909,164	1,917,768	1,967,175	1,898,877	1,916,723	2,001,924	1,836,270	1,807,222
9											
10											
11	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
12											
13	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055
14											
15											
16											
17	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055
18	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
19											
20											
21	2,970,691	2,970,691	2,970,691	2,970,691	2,970,691	2,970,691	2,970,691	2,970,691	2,970,691	2,970,691	2,970,691
22											
23											
24											
25	2,970,691	2,970,691	2,970,691	2,970,691	2,970,691	2,970,691	2,970,691	2,970,691	2,970,691	2,970,691	2,970,691
26											
27											
28	10,258,058	9,587,549	8,889,421	8,204,258	7,498,968	6,790,833	6,064,257	5,360,370	4,650,525	18,388,497	17,707,659
29	120,392	125,335	123,016	126,616	127,123	130,422	125,884	126,946	132,705	121,763	119,891
30	541,763	564,009	553,572	569,773	572,055	586,899	566,479	571,259	597,173	547,932	539,510
31	893,899	928,724	911,938	938,247	942,794	966,964	933,441	942,818	984,148	902,520	887,970
32	-217,284	-217,284	-217,284	-217,284	-217,284	-217,284	0	0	0	0	0
33	-668,262	-702,656	-686,078	-712,063	-716,553	-740,425	-921,917	-931,178	-971,998	-891,377	-877,007

	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI
1											
2											
3	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
4											
5	1,087,211	1,110,794	1,081,347	1,097,493	1,136,109	1,089,390	1,127,470	1,140,146	1,166,478	1,127,249	1,143,495
6	586,670	599,606	583,621	591,373	613,078	587,913	608,670	614,938	629,359	608,095	607,184
7	146,667	149,902	145,905	147,843	153,270	146,978	152,168	153,734	157,340	152,024	151,796
8	1,820,548	1,860,302	1,810,873	1,836,709	1,902,456	1,824,281	1,888,307	1,908,819	1,953,176	1,887,368	1,902,475
9											
10											
11	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
12											
13	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055
14											
15											
16											
17	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055
18	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
19											
20											
21	2,970,691	2,970,691	2,970,691	2,970,691	2,970,691	2,970,691	2,970,691	2,970,691	2,970,691	2,970,691	2,970,691
22											
23											
24											
25	2,970,691	2,970,691	2,970,691	2,970,691	2,970,691	2,970,691	2,970,691	2,970,691	2,970,691	2,970,691	2,970,691
26											
27											
28	17,037,295	16,362,321	15,672,468	15,001,004	14,320,603	13,615,246	12,938,844	12,238,563	11,531,061	10,806,971	10,107,344
29	120,714	123,376	120,087	121,682	126,148	120,970	125,241	126,530	129,498	125,122	124,935
30	543,213	555,191	540,390	547,568	567,665	544,364	563,583	569,387	582,739	563,051	562,207
31	894,824	914,234	889,998	903,286	935,069	896,617	927,959	938,392	960,064	927,777	941,148
32	0	0	0	0	0	0	0	0	0	0	0
33	-883,777	-902,947	-879,010	-892,135	-923,525	-885,548	-916,503	-926,807	-948,212	-916,323	-929,529

	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT
1											
2											
3	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051
4											
5	1,185,951	1,152,664	1,155,167	1,152,905	1,158,036	1,160,945	1,155,943	1,156,599	1,156,886	1,157,682	1,157,611
6	639,745	619,864	620,849	619,147	621,358	624,193	621,082	621,326	621,421	621,876	621,980
7	159,936	154,966	155,212	154,787	155,339	156,048	155,271	155,331	155,355	155,469	155,495
8	1,985,632	1,927,494	1,931,229	1,926,840	1,934,734	1,941,186	1,932,296	1,933,257	1,933,662	1,935,027	1,935,086
9											
10											
11	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051
12											
13	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055
14											
15											
16											
17	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055
18	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
19											
20											
21	2,970,691	2,970,691	2,970,691	2,970,691	2,970,691	2,970,691	2,970,691	2,970,691	2,970,691	2,970,691	2,970,691
22											
23											
24											
25	2,970,691	2,970,691	2,970,691	2,970,691	2,970,691	2,970,691	2,970,691	2,970,691	2,970,691	2,970,691	2,970,691
26											
27											
28	9,408,582	8,672,541	7,959,336	7,244,991	6,532,595	5,817,645	5,099,458	4,384,841	3,669,942	2,954,933	2,239,400
29	131,635	127,544	127,747	127,397	127,851	128,435	127,795	127,845	127,864	127,958	127,979
30	592,356	573,948	574,860	573,285	575,331	577,956	575,076	575,302	575,390	575,811	575,907
31	976,091	948,695	950,755	948,893	953,116	955,510	951,394	951,934	952,169	952,825	952,766
32	0	0	0	0	0	0	0	0	0	0	0
33	-964,041	-936,982	-939,017	-937,178	-941,349	-943,714	-939,648	-940,181	-940,414	-941,061	-941,004

	AU	AV	AW	AX	AY	AZ	BA	BB	BC	BD	BE	BF
1												
2												
3	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063
4												
5	1,156,944	1,157,145	1,157,254	1,157,327	1,157,256	1,157,185	1,157,233	1,157,251	1,157,251	1,157,235	1,157,231	1,157,240
6	621,537	621,628	621,688	621,742	621,715	621,662	621,687	621,699	621,701	621,693	621,688	621,694
7	155,384	155,407	155,422	155,435	155,429	155,416	155,422	155,425	155,425	155,423	155,422	155,423
8	1,933,866	1,934,180	1,934,364	1,934,504	1,934,400	1,934,263	1,934,342	1,934,375	1,934,377	1,934,351	1,934,341	1,934,357
9												
10												
11	2052	2053	2054	2055	2056							
12												
13	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055							
14												
15												
16												
17	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055							
18	2.1	2.1	2.1	2.1	2.1							
19												
20												
21	2,970,691	2,970,691	2,970,691	2,970,691	2,970,691							
22												
23												
24												
25	2,970,691	2,970,691	2,970,691	2,970,691	2,970,691							
26												
27												
28	1,523,751	808,610	93,364	93,364	93,364							
29	127,888	127,907										
30	575,497	575,581										
31	952,218	952,382										
32	0	0										
33	-940,462	-940,625										

	BG	BH	BI	BJ	BK	BL	BM	BN	BO	BP	BQ	BR
1												
2												
3	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075
4												
5	1,157,242	1,157,240	1,157,238	1,157,238	1,157,239	1,157,239	1,157,239	1,157,239	1,157,239	1,157,239	1,157,239	1,157,239
6	621,695	621,694	621,693	621,693	621,694	621,694	621,693	621,693	621,693	621,693	621,693	621,693
7	155,424	155,424	155,423	155,423	155,423	155,423	155,423	155,423	155,423	155,423	155,423	155,423
8	1,934,360	1,934,357	1,934,354	1,934,354	1,934,356	1,934,356	1,934,356	1,934,355	1,934,356	1,934,356	1,934,356	1,934,356
9												
10												
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31												
32												
33												

	BS	BT	BU	BV	BW	BX	BY	BZ	CA	CB	CC	CD
1												
2												
3	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087
4												
5	1,157,239	1,157,239	1,157,239	1,157,239	1,157,239	1,157,239	1,157,239	1,157,239	1,157,239	1,157,239	1,157,239	1,157,239
6	621,693	621,693	621,693	621,693	621,693	621,693	621,693	621,693	621,693	621,693	621,693	621,693
7	155,423	155,423	155,423	155,423	155,423	155,423	155,423	155,423	155,423	155,423	155,423	155,423
8	1,934,356	1,934,356	1,934,356	1,934,356	1,934,356	1,934,356	1,934,356	1,934,356	1,934,356	1,934,356	1,934,356	1,934,356
9												
10												
11												
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29												
30												
31												
32												
33												

	CE	CF	CG	CH	CI	CJ	CK	CL	CM	CN	CO	CP
1												
2												
3	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099
4												
5	1,157,239	1,157,239	1,157,239	1,157,239	1,157,239	1,157,239	1,157,239	1,157,239	1,157,239	1,157,239	1,157,239	1,157,239
6	621,693	621,693	621,693	621,693	621,693	621,693	621,693	621,693	621,693	621,693	621,693	621,693
7	155,423	155,423	155,423	155,423	155,423	155,423	155,423	155,423	155,423	155,423	155,423	155,423
8	1,934,356	1,934,356	1,934,356	1,934,356	1,934,356	1,934,356	1,934,356	1,934,356	1,934,356	1,934,356	1,934,356	1,934,356
9												
10												
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1	
2	
3	2100
4	
5	1,157,239
6	621,693
7	155,423
8	1,934,356
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	A	B
34		Capacity Additions
35		Ending Available Capacity (millions CY)
36		Years of Remaining Capacity at Landfill
37		
38		Years of Remaining Capacity at Trimble CCR Storage
39		Total Dry Tons of CCR Landfilled
40		Weight of Wet Tons Transported by Sterling
41		
42		
43	**Revenue Requirements**	
44		Landfill Fixed O&M
45		Landfill Variable O&M
46		Sterling Variable O&M
47		Savings in Limestone Costs
48		Capital Revenue Requirements
49		Phase I
50		Phase II
51		Phase III
52		Total Revenue Requirements
53		
54		Total Cubic Yards of CCR Disposed
55		Levelized Cost per CY

	C	D	E	F	G	H	I	J	K	L	M
34						0	0	0	0	0	0
35						13,576,013	12,935,054	12,299,090	11,626,420	10,927,938	10,258,058
36						10	9	8	8	7	7
37											
38				3	3	12	11	11	10	10	9
39						756,421	708,827	703,296	743,919	772,476	740,831
40						937,179	869,583	854,919	935,209	982,573	928,866
41											
42											
43				NPVRR	2012	2013	2014	2015	2016	2017	2018
44				24,128,852		1,346,400	1,373,328	1,400,795	1,428,810	1,457,387	1,486,534
45				69,879,761		3,857,745	3,687,320	3,731,716	4,026,208	4,264,382	4,171,480
46				219,274,241		10,262,112	9,712,371	9,739,560	10,867,345	11,646,071	11,229,703
47				0		0	0	0	0	0	0
48											
49				280,182,343	15,689,785	28,195,846	29,854,686	28,941,404	27,858,735	26,816,724	25,812,337
50				16,957,940	0	0	0	0	0	0	0
51				0	0	0	0	0	0	0	0
52				610,423,137	15,689,785	43,662,102	44,627,706	43,813,475	44,181,099	44,184,563	42,700,055
53											
54						1,572,002	1,480,596	1,465,106	1,559,275	1,618,985	1,551,946
55				27.63							

	N	O	P	Q	R	S	T	U	V	W	X
34	0	0	0	0	0	0	0	0	14,480,000	0	0
35	9,587,549	8,889,421	8,204,258	7,498,968	6,790,833	6,064,257	5,360,370	4,650,525	18,388,497	17,707,659	17,037,295
36	6	6	5	5	4	4	4	3	13	12	12
37											
38	9	8	8	7	7	6	6	6	14	14	14
39	741,529	772,084	757,742	780,008	783,156	803,559	778,748	785,342	820,946	753,247	741,658
40	933,729	981,787	958,623	994,929	1,001,204	1,034,559	1,288,148	1,301,089	1,358,125	1,245,477	1,225,398
41											
42											
43	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
44	1,516,265	1,546,590	1,577,522	1,609,073	1,641,254	1,674,079	1,707,561	1,741,712	1,776,546	1,812,077	1,848,319
45	4,258,921	4,523,099	4,527,857	4,754,126	4,868,783	5,095,532	5,036,969	5,181,209	5,524,425	5,170,231	5,192,504
46	11,514,263	12,349,019	12,298,812	13,019,909	13,364,054	14,085,470	17,888,835	18,429,914	19,622,581	18,354,918	18,420,189
47	0	0	0	0	0	0	0	0	0	0	0
48											
49	24,842,752	23,905,361	22,978,907	22,053,800	21,128,492	20,202,883	19,276,967	18,316,303	17,336,104	16,356,284	15,376,772
50	0	0	0	0	0	0	0	1,123,292	3,285,706	4,088,149	3,986,809
51	0	0	0	0	0	0	0	0	0	0	0
52	42,132,202	42,324,069	41,383,099	41,436,907	41,002,583	41,057,964	43,910,331	44,792,431	47,545,363	45,781,659	44,824,593
53											
54	1,556,054	1,618,068	1,588,526	1,634,636	1,641,972	1,684,285	1,625,804	1,641,023	1,714,026	1,572,215	1,547,371
55											

	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI
34	0	0	0	0							
35	16,362,321	15,672,468	15,001,004	14,320,603	13,615,246	12,938,844	12,238,563	11,531,061	10,806,971	10,107,344	9,408,582
36	11	11	10	10	9	9	8	8	7	7	6
37											
38	13	13	12	12	11	11	10	10	9	9	8
39	746,760	763,221	742,876	752,766	780,374	748,340	774,757	782,748	801,099	774,035	773,097
40	1,234,857	1,261,643	1,228,197	1,246,535	1,290,395	1,237,332	1,280,583	1,294,981	1,324,889	1,280,333	1,298,784
41											
42											
43	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
44	1,885,285	1,922,991	1,961,451	2,000,680	2,040,693	2,081,507	2,123,137	2,165,600	2,208,912	2,253,090	2,298,152
45	5,332,783	5,559,346	5,519,375	5,704,707	6,032,208	5,900,285	6,230,739	6,420,908	6,702,869	6,605,951	6,729,906
46	18,933,620	19,731,209	19,592,297	20,282,528	21,416,102	20,946,142	22,111,890	22,807,708	23,801,147	23,460,725	24,274,800
47	0	0	0	0	0	0	0	0	0	0	0
48											
49	14,397,499	13,418,402	12,439,422	11,611,474	10,974,386	10,380,875	9,791,313	2,359,102	408,384	216,137	191,459
50	3,890,808	3,799,754	3,713,287	3,631,074	3,552,804	3,476,844	3,400,881	3,324,505	3,247,708	3,170,478	3,092,805
51	0	0	0	0	0	0	0	0	0	0	0
52	44,439,995	44,431,701	43,225,831	43,230,463	44,016,194	42,785,654	43,657,960	37,077,823	36,369,021	35,706,381	36,587,122
53											
54	1,558,751	1,592,801	1,550,474	1,572,536	1,628,881	1,561,950	1,616,783	1,634,309	1,672,301	1,615,950	1,628,290
55											

	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT
34											
35	8,672,541	7,959,336	7,244,991	6,532,595	5,817,645	5,099,458	4,384,841	3,669,942	2,954,933	2,239,400	1,523,751
36	6	5	5	4	4	3	3	3	3	3	3
37											
38	8	7	7	7	6	6	6	6	6	6	6
39	814,323	789,061	790,323	788,168	790,994	794,574	790,624	790,936	791,059	791,637	791,766
40	1,347,006	1,309,198	1,312,042	1,309,473	1,315,301	1,318,604	1,312,923	1,313,668	1,313,994	1,314,898	1,314,818
41											
42											
43	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051
44	2,344,115	2,390,997	2,438,817	2,487,594	2,537,345	2,588,092	2,639,854	2,692,651	2,746,504	2,801,434	2,857,463
45	7,230,553	7,146,369	7,300,959	7,426,670	7,602,370	7,789,507	7,905,801	8,067,106	8,229,725	8,400,456	8,569,858
46	25,679,607	25,458,018	26,023,577	26,492,067	27,142,173	27,754,546	28,187,683	28,767,751	29,350,372	29,957,982	30,555,270
47	0	0	0	0	0	0	0	0	0	0	0
48											
49	167,805	145,200	123,671	103,243	83,946	65,806	48,522	31,784	15,605	0	0
50	3,014,677	2,936,083	2,857,012	2,777,452	2,697,390	2,616,814	2,489,037	2,354,503	2,235,993	2,118,695	1,512,587
51	0	0	0	0	0	0	0	0	0	0	0
52	38,436,756	38,076,668	38,744,037	39,287,026	40,063,224	40,814,766	41,270,897	41,913,796	42,578,200	43,278,567	43,495,178
53											
54	1,700,082	1,650,187	1,653,362	1,649,574	1,656,299	1,661,901	1,654,265	1,655,080	1,655,424	1,656,594	1,656,653
55											

	AU	AV	AW	AX	AY	AZ	BA	BB	BC	BD	BE	BF
34												
35	808,610	93,364	93,364	93,364	93,364							
36	3	3	3	3	3							
37												
38	6	6	6	6	6							
39	791,205	791,321										
40	1,314,060	1,314,288										
41												
42												
43	2052	2053										
44	2,914,612	2,972,905										
45	8,735,056	8,911,065										
46	31,148,426	31,776,891										
47	0	0										
48												
49	0	0	0	0	0	0	0	0	0	0	0	0
50	747,282	693,713	641,650	591,039	541,902	494,275	448,195	403,703	360,837	319,638	280,148	242,409
51	0	0	0	0	0	0	0	0	0	0	0	0
52	43,545,375	44,354,574	641,650	591,039	541,902	494,275	448,195	403,703	360,837	319,638	280,148	242,409
53												
54	1,655,603	1,655,871										
55												

	BG	BH	BI	BJ	BK	BL	BM	BN	BO	BP	BQ	BR
34												
35												
36												
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43												
44												
45												
46												
47												
48												
49	0	0	0	0	0	0	0	0	0	0	0	0
50	206,466	172,363	140,146	109,862	81,007	53,063	26,053	0	0	0	0	0
51	0	0	0	0	0	0	0	0	0	0	0	0
52	206,466	172,363	140,146	109,862	81,007	53,063	26,053	0	0	0	0	0
53												
54												
55												

	BS	BT	BU	BV	BW	BX	BY	BZ	CA	CB	CC	CD
34												
35												
36												
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41												
42												
43												
44												
45												
46												
47												
48												
49	0	0	0	0	0	0	0	0	0	0	0	0
50	0	0	0	0	0	0	0	0	0	0	0	0
51	0	0	0	0	0	0	0	0	0	0	0	0
52	0	0	0	0	0	0	0	0	0	0	0	0
53												
54												
55												

	CE	CF	CG	CH	CI	CJ	CK	CL	CM	CN	CO	CP
34												
35												
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40												
41												
42												
43												
44												
45												
46												
47												
48												
49	0	0	0	0	0	0	0	0	0	0	0	0
50	0	0	0	0	0	0	0	0	0	0	0	0
51	0	0	0	0	0	0	0	0	0	0	0	0
52	0	0	0	0	0	0	0	0	0	0	0	0
53												
54												
55												

	CQ
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Cell: F13
Comment: Sebourn:
2,566,289 CY per results from Project Engineerg as of Apr-11 ATB#2 survey results per Jeff Heun's email. Add back 8/12 of 2011 results for May-December 2011.

Cell: B14
Comment: Monica Farhat:
15,000 tons to 25,000 tons of BA reuse per year till 2014. TC2 BA will be used to contruct 6-1 and 101

Cell: G16
Comment: Monica Farhat:
Removed 140,000 tons of BA to expand BAP and BA produced by TC2 will be used to construct 6-1 and 10-1

Cell: F21
Comment: MSF:
2.16 MCY remaining as of 1/1/2012 per email from T Guelda. Add Gypsum CCP back to estimate 2011 Beg Capacity

	A
1	**Landfill w/ Sterling Ventures' Proposal to Store Gypsum AND Supply Limestone**
2	
3	**Coal Combustion Residuals (Tons)**
4	
5	
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8	
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10	**Storage Capacity (Cubic Yards)**
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	B	C	D	E	F	G	H	I
1								
2								
3		2008	2009	2010	2011	2012	2013	2014
4								
5	Dry Gypsum	684,116	829,878	1,049,524	1,060,429	967,572	1,089,125	1,029,611
6	Fly Ash	551,632	521,554	569,529	565,950	530,106	596,987	559,500
7	Bottom Ash	137,908	130,388	142,382	141,487	132,526	149,247	139,875
8	Total CCR Produced	1,373,657	1,481,821	1,761,435	1,767,867	1,630,204	1,835,359	1,728,986
9								
10								
11					2011	2012	2013	2014
12	Ash Treatment Basin #2 (ATB #2) - Existing							
13	Beginning Capacity				2,796,541	2,087,856	1,424,055	1,424,055
14	Bottom Ash Production				149,722	140,240		
15	Fly Ash				558,963	523,561		
16	Capacity Additions							
17	Ending Available Capacity				2,087,856	1,424,055	1,424,055	1,424,055
18	Years of Remaining Capacity at ATB #2				4.6	2.1	2.1	2.1
19								
20	Gypsum Stack - Existing							
21	Beginning Capacity (millions CY)				2,990,054	2,979,806	2,970,691	2,970,691
22	Gypsum				1,047,338	955,626		
23	Certainteed Gypsum Reuse				-217,284	-217,284		
24	Sterling Ventures Gyspum Reuse				-819,806	-729,227		
25	Ending Available Capacity (millions CY)				2,979,806	2,970,691	2,970,691	2,970,691
26								
27	New Landfill							
28	Beginning Capacity (millions CY)						14,260,000	13,576,013
29	Bottom Ash Production						122,837	115,124
30	Fly Ash						552,766	518,056
31	Gypsum						896,399	847,416
32	Certainteed Gypsum Reuse						-217,284	-217,284
33	Sterling Ventures Gyspum Reuse						-670,731	-622,353

	J	K	L	M	N	O	P	Q	R	S	T
1											
2											
3	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
4											
5	1,016,700	1,087,391	1,129,091	1,081,806	1,086,088	1,128,399	1,108,005	1,139,970	1,145,494	1,174,862	1,134,131
6	555,203	587,003	609,437	584,588	585,104	609,130	597,857	615,355	617,819	633,851	611,797
7	138,801	146,751	152,359	146,147	146,276	152,283	149,464	153,839	154,455	158,463	152,949
8	1,710,704	1,821,144	1,890,887	1,812,541	1,817,468	1,889,812	1,855,327	1,909,164	1,917,768	1,967,175	1,898,877
9											
10											
11	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
12											
13	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055
14											
15											
16											
17	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055
18	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
19											
20											
21	2,970,691	2,970,691	2,970,691	2,970,691	2,970,691	2,970,691	2,970,691	2,970,691	2,970,691	2,970,691	2,970,691
22											
23											
24											
25	2,970,691	2,970,691	2,970,691	2,970,691	2,970,691	2,970,691	2,970,691	2,970,691	2,970,691	2,970,691	2,970,691
26											
27											
28	12,935,054	12,299,090	11,626,420	10,927,938	10,258,058	9,587,549	8,889,421	8,204,258	7,498,968	6,790,833	6,064,257
29	114,239	120,782	125,399	120,286	120,392	125,335	123,016	126,616	127,123	130,422	125,884
30	514,077	543,521	564,294	541,285	541,763	564,009	553,572	569,773	572,055	586,899	566,479
31	836,790	894,972	929,293	890,376	893,899	928,724	911,938	938,247	942,794	966,964	933,441
32	-217,284	-217,284	-217,284	-217,284	-217,284	-217,284	-217,284	-217,284	-217,284	-217,284	0
33	-611,858	-669,321	-703,219	-664,782	-668,262	-702,656	-686,078	-712,063	-716,553	-740,425	-921,917

	U	V	W	X	Y	Z	AA	AB	AC	AD	AE
1											
2											
3	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
4											
5	1,145,524	1,195,740	1,096,561	1,078,883	1,087,211	1,110,794	1,081,347	1,097,493	1,136,109	1,089,390	1,127,470
6	616,960	644,947	591,767	582,671	586,670	599,606	583,621	591,373	613,078	587,913	608,670
7	154,240	161,237	147,942	145,668	146,667	149,902	145,905	147,843	153,270	146,978	152,168
8	1,916,723	2,001,924	1,836,270	1,807,222	1,820,548	1,860,302	1,810,873	1,836,709	1,902,456	1,824,281	1,888,307
9											
10											
11	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
12											
13	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055
14											
15											
16											
17	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055
18	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
19											
20											
21	2,970,691	2,970,691	2,970,691	2,970,691	2,970,691	2,970,691	2,970,691	2,970,691	2,970,691	2,970,691	2,970,691
22											
23											
24											
25	2,970,691	2,970,691	2,970,691	2,970,691	2,970,691	2,970,691	2,970,691	2,970,691	2,970,691	2,970,691	2,970,691
26											
27											
28	5,360,370	4,650,525	18,388,497	17,707,659	17,037,295	16,362,321	15,672,468	15,001,004	14,320,603	13,615,246	12,938,844
29	126,946	132,705	121,763	119,891	120,714	123,376	120,087	121,682	126,148	120,970	125,241
30	571,259	597,173	547,932	539,510	543,213	555,191	540,390	547,568	567,665	544,364	563,583
31	942,818	984,148	902,520	887,970	894,824	914,234	889,998	903,286	935,069	896,617	927,959
32	0	0	0	0	0	0	0	0	0	0	0
33	-931,178	-971,998	-891,377	-877,007	-883,777	-902,947	-879,010	-892,135	-923,525	-885,548	-916,503

	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP
1											
2											
3	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047
4											
5	1,140,146	1,166,478	1,127,249	1,143,495	1,185,951	1,152,664	1,155,167	1,152,905	1,158,036	1,160,945	1,155,943
6	614,938	629,359	608,095	607,184	639,745	619,864	620,849	619,147	621,358	624,193	621,082
7	153,734	157,340	152,024	151,796	159,936	154,966	155,212	154,787	155,339	156,048	155,271
8	1,908,819	1,953,176	1,887,368	1,902,475	1,985,632	1,927,494	1,931,229	1,926,840	1,934,734	1,941,186	1,932,296
9											
10											
11	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047
12											
13	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055
14											
15											
16											
17	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055
18	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
19											
20											
21	2,970,691	2,970,691	2,970,691	2,970,691	2,970,691	2,970,691	2,970,691	2,970,691	2,970,691	2,970,691	2,970,691
22											
23											
24											
25	2,970,691	2,970,691	2,970,691	2,970,691	2,970,691	2,970,691	2,970,691	2,970,691	2,970,691	2,970,691	2,970,691
26											
27											
28	12,238,563	11,531,061	10,806,971	10,107,344	9,408,582	8,672,541	7,959,336	7,244,991	6,532,595	5,817,645	5,099,458
29	126,530	129,498	125,122	124,935	131,635	127,544	127,747	127,397	127,851	128,435	127,795
30	569,387	582,739	563,051	562,207	592,356	573,948	574,860	573,285	575,331	577,956	575,076
31	938,392	960,064	927,777	941,148	976,091	948,695	950,755	948,893	953,116	955,510	951,394
32	0	0	0	0	0	0	0	0	0	0	0
33	-926,807	-948,212	-916,323	-929,529	-964,041	-936,982	-939,017	-937,178	-941,349	-943,714	-939,648

	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA
1											
2											
3	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058
4											
5	1,156,599	1,156,886	1,157,682	1,157,611	1,156,944	1,157,145	1,157,254	1,157,327	1,157,256	1,157,185	1,157,233
6	621,326	621,421	621,876	621,980	621,537	621,628	621,688	621,742	621,715	621,662	621,687
7	155,331	155,355	155,469	155,495	155,384	155,407	155,422	155,435	155,429	155,416	155,422
8	1,933,257	1,933,662	1,935,027	1,935,086	1,933,866	1,934,180	1,934,364	1,934,504	1,934,400	1,934,263	1,934,342
9											
10											
11	2048	2049	2050	2051	2052	2053	2054	2055	2056		
12											
13	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055		
14											
15											
16											
17	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055	1,424,055		
18	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1		
19											
20											
21	2,970,691	2,970,691	2,970,691	2,970,691	2,970,691	2,970,691	2,970,691	2,970,691	2,970,691		
22											
23											
24											
25	2,970,691	2,970,691	2,970,691	2,970,691	2,970,691	2,970,691	2,970,691	2,970,691	2,970,691		
26											
27											
28	4,384,841	3,669,942	2,954,933	2,239,400	1,523,751	808,610	93,364	93,364	93,364		
29	127,845	127,864	127,958	127,979	127,888	127,907					
30	575,302	575,390	575,811	575,907	575,497	575,581					
31	951,934	952,169	952,825	952,766	952,218	952,382					
32	0	0	0	0	0	0					
33	-940,181	-940,414	-941,061	-941,004	-940,462	-940,625					

	BB	BC	BD	BE	BF	BG	BH	BI	BJ	BK	BL	BM
1												
2												
3	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070
4												
5	1,157,251	1,157,251	1,157,235	1,157,231	1,157,240	1,157,242	1,157,240	1,157,238	1,157,238	1,157,239	1,157,239	1,157,239
6	621,699	621,701	621,693	621,688	621,694	621,695	621,694	621,693	621,693	621,694	621,694	621,693
7	155,425	155,425	155,423	155,422	155,423	155,424	155,424	155,423	155,423	155,423	155,423	155,423
8	1,934,375	1,934,377	1,934,351	1,934,341	1,934,357	1,934,360	1,934,357	1,934,354	1,934,354	1,934,356	1,934,356	1,934,356
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	BN	BO	BP	BQ	BR	BS	BT	BU	BV	BW	BX	BY
1												
2												
3	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082
4												
5	1,157,239	1,157,239	1,157,239	1,157,239	1,157,239	1,157,239	1,157,239	1,157,239	1,157,239	1,157,239	1,157,239	1,157,239
6	621,693	621,693	621,693	621,693	621,693	621,693	621,693	621,693	621,693	621,693	621,693	621,693
7	155,423	155,423	155,423	155,423	155,423	155,423	155,423	155,423	155,423	155,423	155,423	155,423
8	1,934,355	1,934,356	1,934,356	1,934,356	1,934,356	1,934,356	1,934,356	1,934,356	1,934,356	1,934,356	1,934,356	1,934,356
9												
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	BZ	CA	CB	CC	CD	CE	CF	CG	CH	CI	CJ	CK
1												
2												
3	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094
4												
5	1,157,239	1,157,239	1,157,239	1,157,239	1,157,239	1,157,239	1,157,239	1,157,239	1,157,239	1,157,239	1,157,239	1,157,239
6	621,693	621,693	621,693	621,693	621,693	621,693	621,693	621,693	621,693	621,693	621,693	621,693
7	155,423	155,423	155,423	155,423	155,423	155,423	155,423	155,423	155,423	155,423	155,423	155,423
8	1,934,356	1,934,356	1,934,356	1,934,356	1,934,356	1,934,356	1,934,356	1,934,356	1,934,356	1,934,356	1,934,356	1,934,356
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33												

	CL	CM	CN	CO	CP	CQ
1						
2						
3	2095	2096	2097	2098	2099	2100
4						
5	1,157,239	1,157,239	1,157,239	1,157,239	1,157,239	1,157,239
6	621,693	621,693	621,693	621,693	621,693	621,693
7	155,423	155,423	155,423	155,423	155,423	155,423
8	1,934,356	1,934,356	1,934,356	1,934,356	1,934,356	1,934,356
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43	**Revenue Requirements**
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	B	C	D	E	F	G	H	I
34	Capacity Additions						0	0
35	Ending Available Capacity (millions CY)						13,576,013	12,935,054
36	Years of Remaining Capacity at Landfill						10	9
37								
38	Years of Remaining Capacity at Trimble CCR Storage				3	3	12	11
39	Total Dry Tons of CCR Landfilled						756,421	708,827
40	Weight of Wet Tons Transported by Sterling						937,179	869,583
41								
42								
43					NPVRR	2012	2013	2014
44	Landfill Fixed O&M				24,128,852		1,346,400	1,373,328
45	Landfill Variable O&M				69,879,761		3,857,745	3,687,320
46	Sterling Variable O&M				219,274,241		10,262,112	9,712,371
47	Savings in Limestone Costs				-25,611,278		-1,429,120	-1,457,702
48	Capital Revenue Requirements							
49	Phase I				280,182,343	15,689,785	28,195,846	29,854,686
50	Phase II				16,957,940	0	0	0
51	Phase III				0	0	0	0
52	Total Revenue Requirements				584,811,859	15,689,785	42,232,982	43,170,003
53								
54	Total Cubic Yards of CCR Disposed						1,572,002	1,480,596
55	Levelized Cost per CY				26.47			

	J	K	L	M	N	O	P	Q	R	S	T
34	0	0	0	0	0	0	0	0	0	0	0
35	12,299,090	11,626,420	10,927,938	10,258,058	9,587,549	8,889,421	8,204,258	7,498,968	6,790,833	6,064,257	5,360,370
36	8	8	7	7	6	6	5	5	4	4	4
37											
38	11	10	10	9	9	8	8	7	7	6	6
39	703,296	743,919	772,476	740,831	741,529	772,084	757,742	780,008	783,156	803,559	778,748
40	854,919	935,209	982,573	928,866	933,729	981,787	958,623	994,929	1,001,204	1,034,559	1,288,148
41											
42											
43	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
44	1,400,795	1,428,810	1,457,387	1,486,534	1,516,265	1,546,590	1,577,522	1,609,073	1,641,254	1,674,079	1,707,561
45	3,731,716	4,026,208	4,264,382	4,171,480	4,258,921	4,523,099	4,527,857	4,754,126	4,868,783	5,095,532	5,036,969
46	9,739,560	10,867,345	11,646,071	11,229,703	11,514,263	12,349,019	12,298,812	13,019,909	13,364,054	14,085,470	17,888,835
47	-1,486,856	-1,516,594	-1,546,925	-1,577,864	-1,609,421	-1,641,610	-1,674,442	-1,707,931	-1,742,089	-1,776,931	-1,812,470
48											
49	28,941,404	27,858,735	26,816,724	25,812,337	24,842,752	23,905,361	22,978,907	22,053,800	21,128,492	20,202,883	19,276,967
50	0	0	0	0	0	0	0	0	0	0	0
51	0	0	0	0	0	0	0	0	0	0	0
52	42,326,619	42,664,505	42,637,637	41,122,191	40,522,780	40,682,459	39,708,657	39,728,976	39,260,494	39,281,033	42,097,861
53											
54	1,465,106	1,559,275	1,618,985	1,551,946	1,556,054	1,618,068	1,588,526	1,634,636	1,641,972	1,684,285	1,625,804
55											

	U	V	W	X	Y	Z	AA	AB	AC	AD	AE
34	0	14,480,000	0	0	0	0	0	0			
35	4,650,525	18,388,497	17,707,659	17,037,295	16,362,321	15,672,468	15,001,004	14,320,603	13,615,246	12,938,844	12,238,563
36	3	13	12	12	11	11	10	10	9	9	8
37											
38	6	14	14	14	13	13	12	12	11	11	10
39	785,342	820,946	753,247	741,658	746,760	763,221	742,876	752,766	780,374	748,340	774,757
40	1,301,089	1,358,125	1,245,477	1,225,398	1,234,857	1,261,643	1,228,197	1,246,535	1,290,395	1,237,332	1,280,583
41											
42											
43	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
44	1,741,712	1,776,546	1,812,077	1,848,319	1,885,285	1,922,991	1,961,451	2,000,680	2,040,693	2,081,507	2,123,137
45	5,181,209	5,524,425	5,170,231	5,192,504	5,332,783	5,559,346	5,519,375	5,704,707	6,032,208	5,900,285	6,230,739
46	18,429,914	19,622,581	18,354,918	18,420,189	18,933,620	19,731,209	19,592,297	20,282,528	21,416,102	20,946,142	22,111,890
47	-1,848,719	-1,885,693	-1,923,407	-1,961,876	-2,001,113	-2,041,135	-2,081,958	-2,123,597	-2,166,069	-2,209,390	-2,253,578
48											
49	18,316,303	17,336,104	16,356,284	15,376,772	14,397,499	13,418,402	12,439,422	11,611,474	10,974,386	10,380,875	9,791,313
50	1,123,292	3,285,706	4,088,149	3,986,809	3,890,808	3,799,754	3,713,287	3,631,074	3,552,804	3,476,844	3,400,881
51	0	0	0	0	0	0	0	0	0	0	0
52	42,943,712	45,659,670	43,858,252	42,862,718	42,438,882	42,390,565	41,143,873	41,106,866	41,850,125	40,576,263	41,404,382
53											
54	1,641,023	1,714,026	1,572,215	1,547,371	1,558,751	1,592,801	1,550,474	1,572,536	1,628,881	1,561,950	1,616,783
55											

	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP
34											
35	11,531,061	10,806,971	10,107,344	9,408,582	8,672,541	7,959,336	7,244,991	6,532,595	5,817,645	5,099,458	4,384,841
36	8	7	7	6	6	5	5	4	4	3	3
37											
38	10	9	9	8	8	7	7	7	6	6	6
39	782,748	801,099	774,035	773,097	814,323	789,061	790,323	788,168	790,994	794,574	790,624
40	1,294,981	1,324,889	1,280,333	1,298,784	1,347,006	1,309,198	1,312,042	1,309,473	1,315,301	1,318,604	1,312,923
41											
42											
43	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047
44	2,165,600	2,208,912	2,253,090	2,298,152	2,344,115	2,390,997	2,438,817	2,487,594	2,537,345	2,588,092	2,639,854
45	6,420,908	6,702,869	6,605,951	6,729,906	7,230,553	7,146,369	7,300,959	7,426,670	7,602,370	7,789,507	7,905,801
46	22,807,708	23,801,147	23,460,725	24,274,800	25,679,607	25,458,018	26,023,577	26,492,067	27,142,173	27,754,546	28,187,683
47	-2,298,650	-2,344,623	-2,391,515	-2,439,346	-2,488,133	-2,537,895	-2,588,653	-2,640,426	-2,693,235	-2,747,099	-2,802,041
48											
49	2,359,102	408,384	216,137	191,459	167,805	145,200	123,671	103,243	83,946	65,806	48,522
50	3,324,505	3,247,708	3,170,478	3,092,805	3,014,677	2,936,083	2,857,012	2,777,452	2,697,390	2,616,814	2,489,037
51	0	0	0	0	0	0	0	0	0	0	0
52	34,779,173	34,024,398	33,314,865	34,147,776	35,948,624	35,538,773	36,155,384	36,646,600	37,369,989	38,067,667	38,468,856
53											
54	1,634,309	1,672,301	1,615,950	1,628,290	1,700,082	1,650,187	1,653,362	1,649,574	1,656,299	1,661,901	1,654,265
55											

	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA
34											
35	3,669,942	2,954,933	2,239,400	1,523,751	808,610	93,364	93,364	93,364	93,364		
36	3	3	3	3	3	3	3	3	3		
37											
38	6	6	6	6	6	6	6	6	6		
39	790,936	791,059	791,637	791,766	791,205	791,321					
40	1,313,668	1,313,994	1,314,898	1,314,818	1,314,060	1,314,288					
41											
42											
43	2048	2049	2050	2051	2052	2053					
44	2,692,651	2,746,504	2,801,434	2,857,463	2,914,612	2,972,905					
45	8,067,106	8,229,725	8,400,456	8,569,858	8,735,056	8,911,065					
46	28,767,751	29,350,372	29,957,982	30,555,270	31,148,426	31,776,891					
47	-2,858,082	-2,915,244	-2,973,549	-3,033,020	-3,093,680	-3,155,554					
48											
49	31,784	15,605	0	0	0	0	0	0	0	0	0
50	2,354,503	2,235,993	2,118,695	1,512,587	747,282	693,713	641,650	591,039	541,902	494,275	448,195
51	0	0	0	0	0	0	0	0	0	0	0
52	39,055,714	39,662,956	40,305,018	40,462,158	40,451,695	41,199,020	641,650	591,039	541,902	494,275	448,195
53											
54	1,655,080	1,655,424	1,656,594	1,656,653	1,655,603	1,655,871					
55											

	BB	BC	BD	BE	BF	BG	BH	BI	BJ	BK	BL	BM
34												
35												
36												
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42												
43												
44												
45												
46												
47												
48												
49	0	0	0	0	0	0	0	0	0	0	0	0
50	403,703	360,837	319,638	280,148	242,409	206,466	172,363	140,146	109,862	81,007	53,063	26,053
51	0	0	0	0	0	0	0	0	0	0	0	0
52	403,703	360,837	319,638	280,148	242,409	206,466	172,363	140,146	109,862	81,007	53,063	26,053
53												
54												
55												

	BN	BO	BP	BQ	BR	BS	BT	BU	BV	BW	BX	BY
34												
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45												
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48												
49	0	0	0	0	0	0	0	0	0	0	0	0
50	0	0	0	0	0	0	0	0	0	0	0	0
51	0	0	0	0	0	0	0	0	0	0	0	0
52	0	0	0	0	0	0	0	0	0	0	0	0
53												
54												
55												

	BZ	CA	CB	CC	CD	CE	CF	CG	CH	CI	CJ	CK
34												
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40												
41												
42												
43												
44												
45												
46												
47												
48												
49	0	0	0	0	0	0	0	0	0	0	0	0
50	0	0	0	0	0	0	0	0	0	0	0	0
51	0	0	0	0	0	0	0	0	0	0	0	0
52	0	0	0	0	0	0	0	0	0	0	0	0
53												
54												
55												

	CL	CM	CN	CO	CP	CQ
34						
35						
36						
37						
38						
39						
40						
41						
42						
43						
44						
45						
46						
47						
48						
49	0	0	0	0	0	0
50	0	0	0	0	0	0
51	0	0	0	0	0	0
52	0	0	0	0	0	0
53						
54						
55						

Cell: F13
Comment: Sebourn:
2,566,289 CY per results from Project Engineerg as of Apr-11 ATB#2 survey results per Jeff Heun's email. Add back 8/12 of 2011 results for May-December 2011.

Cell: B14
Comment: Monica Farhat:
15,000 tons to 25,000 tons of BA reuse per year till 2014. TC2 BA will be used to contruct 6-1 and 101

Cell: G16
Comment: Monica Farhat:
Removed 140,000 tons of BA to expand BAP and BA produced by TC2 will be used to construct 6-1 and 10-1

Cell: F21
Comment: MSF:
2.16 MCY remaining as of 1/1/2012 per email from T Guelda. Add Gypsum CCP back to estimate 2011 Beg Capacity

	A	B	C	D	E	F	G	H
1								
2								
3								
4								
5		Prj #	Years	PrjEng	CapacityLife-Landfill			
6			Pre-2012	76,183,457	76,183,457		Prj #	Cap Ex
7		CF 01	2012	173,586,225	173,586,225		RR CF 01	173,586,225
8		CF 02	2013	45,856,758	45,856,758		RR CF 02	45,856,758
9	Phase I 14.26 MCY	CF 03	2014	4,250,256	4,250,256		RR CF 03	4,250,256
10		CF 04	2015	700,000	532,278		RR CF 04	532,278
11		CF 05	2016	800,000	545,585		RR CF 05	545,585
12		CF 06	2017	1,799,908	559,224		RR CF 06	559,224
13		CF 07	2018	10,200,000	573,205		RR CF 07	573,205
14		CF 08	2019	14,200,000	587,535		RR CF 08	587,535
15		CF 09	2020	900,000	602,223		RR CF 09	602,223
16	Phase 2 14.48 MCY	CF 10	2021	900,000	10,984,284		RR CF 10	10,984,284
17		CF 11	2022	1,104,552	15,291,847		RR CF 11	15,291,847
18		CF 12	2023	1,170,825	969,202		RR CF 12	969,202
19		CF 13	2024	1,241,075	969,202		RR CF 13	969,202
20		CF 14	2025	1,315,539	1,189,482		RR CF 14	1,189,482
21		CF 15	2026	18,909,069	1,260,851		RR CF 15	1,260,851
22		CF 16	2027	42,013,964	1,336,502		RR CF 16	1,336,502
23		CF 17	2028	26,170,830	1,416,692		RR CF 17	1,416,692
24		CF 18	2029	2,098,562	20,362,999		RR CF 18	20,362,999
25		CF 19	2030	2,224,476	45,244,444		RR CF 19	45,244,444
26		CF 20	2031	2,357,944	28,183,122		RR CF 20	28,183,122
27		CF 21	2032	2,499,421	2,265,617		RR CF 21	2,265,617
28	Phase 3 23.02 MCY	CF 22	2033	2,649,386	2,322,257		RR CF 22	2,322,257
29		CF 23	2034	2,808,349	2,380,314		RR CF 23	2,380,314
30		CF 24	2035	2,976,850	2,439,821		RR CF 24	2,439,821
31		CF 25	2036	3,155,461	2,500,817		RR CF 25	2,500,817
32		CF 26	2037	3,344,789	2,563,337		RR CF 26	2,563,337
33		CF 27	2038	3,545,476	2,627,421		RR CF 27	2,627,421

	I	J	K	L	M	N	O	P	Q
1									
2									
3									
4				2012	2013	2014	2015	2016	2017
5				9.04%	17.77%	16.98%	16.20%	15.45%	14.71%
6	Cash Flow Year	RR	PVRR						
7	2012	310,936,877	219,098,808	15,689,785	30,849,050	29,469,334	28,126,263	26,817,093	25,539,273
8	2013	82,141,063	54,245,496	-	4,144,814	8,149,480	7,784,996	7,430,193	7,084,346
9	2014	7,613,285	4,712,062	-	-	384,164	755,339	721,556	688,671
10	2015	953,444	553,057	-	-	-	48,111	94,594	90,364
11	2016	977,280	531,287	-	-	-	-	49,313	96,959
12	2017	1,001,712	510,374	-	-	-	-	-	50,546
13	2018	1,026,755	490,284	-	-	-	-	-	-
14	2019	1,052,424	470,986	-	-	-	-	-	-
15	2020	1,078,734	452,446	-	-	-	-	-	-
16	2021	19,675,634	7,734,224	-	-	-	-	-	-
17	2022	27,391,569	10,091,146	-	-	-	-	-	-
18	2023	1,736,085	599,419	-	-	-	-	-	-
19	2024	1,736,085	561,779	-	-	-	-	-	-
20	2025	2,130,663	646,168	-	-	-	-	-	-
21	2026	2,258,503	641,928	-	-	-	-	-	-
22	2027	2,394,013	637,717	-	-	-	-	-	-
23	2028	2,537,654	633,533	-	-	-	-	-	-
24	2029	36,475,287	8,534,368	-	-	-	-	-	-
25	2030	81,044,254	17,771,761	-	-	-	-	-	-
26	2031	50,483,106	10,375,043	-	-	-	-	-	-
27	2032	4,058,293	781,669	-	-	-	-	-	-
28	2033	4,159,751	750,900	-	-	-	-	-	-
29	2034	4,263,744	721,343	-	-	-	-	-	-
30	2035	4,370,338	692,949	-	-	-	-	-	-
31	2036	4,479,596	665,672	-	-	-	-	-	-
32	2037	4,591,586	639,470	-	-	-	-	-	-
33	2038	4,706,376	614,299	-	-	-	-	-	-

	R	S	T	U	V	W	X	Y	Z
1									
2									
3	CER RR Percentage								
4	2018	2019	2020	2021	2022	2023	2024	2025	2026
5	13.99%	13.29%	12.60%	11.91%	11.22%	10.54%	9.85%	1.30%	1.13%
6									
7	24,290,441	23,068,446	21,871,257	20,678,147	19,485,036	18,291,926	17,098,819	2,264,533	1,962,595
8	6,746,781	6,416,874	6,094,056	5,777,791	5,462,604	5,147,416	4,832,229	4,517,043	598,228
9	656,616	625,329	594,751	564,831	535,517	506,304	477,091	447,878	418,664
10	86,245	82,231	78,313	74,483	70,736	67,065	63,407	59,748	56,090
11	92,623	88,401	84,287	80,270	76,345	72,505	68,742	64,992	61,242
12	99,383	94,938	90,611	86,394	82,277	78,254	74,317	70,460	66,617
13	51,810	101,868	97,312	92,877	88,554	84,334	80,210	76,175	72,222
14	-	53,105	104,414	99,744	95,199	90,767	86,442	82,216	78,079
15	-	-	54,433	107,025	102,238	97,579	93,037	88,603	84,271
16	-	-	-	992,827	1,952,083	1,864,777	1,779,789	1,696,947	1,616,088
17	-	-	-	-	1,382,171	2,717,606	2,596,062	2,477,746	2,362,416
18	-	-	-	-	-	87,602	172,243	164,539	157,040
19	-	-	-	-	-	-	87,602	172,243	164,539
20	-	-	-	-	-	-	-	107,513	211,390
21	-	-	-	-	-	-	-	-	113,963
22	-	-	-	-	-	-	-	-	-
23	-	-	-	-	-	-	-	-	-
24	-	-	-	-	-	-	-	-	-
25	-	-	-	-	-	-	-	-	-
26	-	-	-	-	-	-	-	-	-
27	-	-	-	-	-	-	-	-	-
28	-	-	-	-	-	-	-	-	-
29	-	-	-	-	-	-	-	-	-
30	-	-	-	-	-	-	-	-	-
31	-	-	-	-	-	-	-	-	-
32	-	-	-	-	-	-	-	-	-
33	-	-	-	-	-	-	-	-	-

	AA	AB	AC	AD	AE	AF	AG	AH	AI
1									
2									
3									
4	2027	2028	2029	2030	2031	2032	2033	2034	2035
5	0.96%	0.78%	0.61%	0.43%	0.26%	0.09%	0.00%	0.00%	0.00%
6									
7	1,660,658	1,358,720	1,056,782	754,844	452,906	150,968	-	-	-
8	518,464	438,701	358,937	279,173	199,409	119,646	39,882	-	-
9	55,447	48,054	40,661	33,268	25,875	18,482	11,089	3,696	-
10	52,431	6,944	6,018	5,092	4,166	3,240	2,315	1,389	463
11	57,492	53,742	7,117	6,168	5,219	4,270	3,321	2,372	1,423
12	62,773	58,929	55,085	7,295	6,323	5,350	4,377	3,405	2,432
13	68,282	64,342	60,402	56,463	7,478	6,481	5,484	4,487	3,490
14	74,027	69,989	65,951	61,912	57,874	7,665	6,643	5,621	4,599
15	80,031	75,878	71,739	67,600	63,460	59,321	7,856	6,809	5,761
16	1,537,064	1,459,738	1,383,981	1,308,483	1,232,985	1,157,487	1,081,988	143,296	124,190
17	2,249,848	2,139,834	2,032,184	1,926,719	1,821,614	1,716,508	1,611,403	1,506,298	199,491
18	149,731	142,596	135,623	128,800	122,116	115,454	108,793	102,131	95,470
19	157,040	149,731	142,596	135,623	128,800	122,116	115,454	108,793	102,131
20	201,936	192,732	183,761	175,005	166,448	158,074	149,871	141,695	133,519
21	224,073	214,052	204,296	194,787	185,506	176,435	167,559	158,863	150,197
22	120,801	237,518	226,895	216,554	206,474	196,636	187,021	177,612	168,395
23	-	128,049	251,769	240,509	229,547	218,863	208,434	198,242	188,269
24	-	-	1,840,532	3,618,831	3,456,980	3,299,427	3,145,851	2,995,953	2,849,456
25	-	-	-	4,089,470	8,040,662	7,681,045	7,330,980	6,989,751	6,656,693
26	-	-	-	-	2,547,363	5,008,592	4,784,584	4,566,525	4,353,971
27	-	-	-	-	-	204,780	402,636	384,629	367,099
28	-	-	-	-	-	-	209,900	412,702	394,244
29	-	-	-	-	-	-	-	215,147	423,020
30	-	-	-	-	-	-	-	-	220,526
31	-	-	-	-	-	-	-	-	-
32	-	-	-	-	-	-	-	-	-
33	-	-	-	-	-	-	-	-	-

	AJ	AK	AL	AM	AN	AO	AP	AQ	AR
1									
2									
3									
4	2036	2037	2038	2039	2040	2041	2042	2043	2044
5	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
6									
7	-	-	-	-	-	-	-	-	-
8	-	-	-	-	-	-	-	-	-
9	-	-	-	-	-	-	-	-	-
10	-	-	-	-	-	-	-	-	-
11	474	-	-	-	-	-	-	-	-
12	1,459	486	-	-	-	-	-	-	-
13	2,493	1,496	499	-	-	-	-	-	-
14	3,577	2,555	1,533	511	-	-	-	-	-
15	4,714	3,666	2,619	1,571	524	-	-	-	-
16	105,084	85,978	66,872	47,765	28,659	9,553	-	-	-
17	172,892	146,293	119,695	93,096	66,497	39,898	13,299	-	-
18	12,644	10,958	9,272	7,586	5,900	4,215	2,529	843	-
19	95,470	12,644	10,958	9,272	7,586	5,900	4,215	2,529	843
20	125,344	117,168	15,517	13,448	11,379	9,310	7,241	5,172	3,103
21	141,530	132,864	124,198	16,449	14,255	12,062	9,869	7,676	5,483
22	159,208	150,022	140,836	131,650	17,435	15,111	12,786	10,461	8,137
23	178,498	168,761	159,024	149,286	139,549	18,482	16,017	13,553	11,089
24	2,706,106	2,565,667	2,425,706	2,285,745	2,145,784	2,005,823	265,647	230,228	194,808
25	6,331,191	6,012,683	5,700,642	5,389,663	5,078,684	4,767,706	4,456,728	590,240	511,541
26	4,146,507	3,943,749	3,745,348	3,550,975	3,357,264	3,163,553	2,969,842	2,776,131	367,665
27	350,012	333,334	317,035	301,085	285,460	269,888	254,315	238,743	223,171
28	376,276	358,762	341,667	324,960	308,612	292,596	276,635	260,673	244,712
29	404,100	385,683	367,731	350,209	333,084	316,328	299,911	283,551	267,190
30	433,595	414,203	395,325	376,925	358,964	341,412	324,236	307,409	290,639
31	226,039	444,435	424,558	405,209	386,348	367,938	349,947	332,342	315,094
32	-	231,690	455,546	435,172	415,339	396,006	377,137	358,695	340,650
33	-	-	237,482	466,935	446,051	425,722	405,907	386,565	367,663

	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB
1										
2										
3										
4	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054
5	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
6										
7	-	-	-	-	-	-	-	-	-	-
8	-	-	-	-	-	-	-	-	-	-
9	-	-	-	-	-	-	-	-	-	-
10	-	-	-	-	-	-	-	-	-	-
11	-	-	-	-	-	-	-	-	-	-
12	-	-	-	-	-	-	-	-	-	-
13	-	-	-	-	-	-	-	-	-	-
14	-	-	-	-	-	-	-	-	-	-
15	-	-	-	-	-	-	-	-	-	-
16	-	-	-	-	-	-	-	-	-	-
17	-	-	-	-	-	-	-	-	-	-
18	-	-	-	-	-	-	-	-	-	-
19	-	-	-	-	-	-	-	-	-	-
20	1,034	-	-	-	-	-	-	-	-	-
21	3,290	1,097	-	-	-	-	-	-	-	-
22	5,812	3,487	1,162	-	-	-	-	-	-	-
23	8,625	6,161	3,696	1,232	-	-	-	-	-	-
24	159,388	123,969	88,549	53,129	17,710	-	-	-	-	-
25	432,843	354,144	275,445	196,747	118,048	39,349	-	-	-	-
26	318,643	269,621	220,599	171,577	122,555	73,533	24,511	-	-	-
27	29,556	25,615	21,675	17,734	13,793	9,852	5,911	1,970	-	-
28	228,750	30,295	26,256	22,216	18,177	14,138	10,098	6,059	2,020	-
29	250,829	234,469	31,053	26,912	22,772	18,632	14,491	10,351	6,211	2,070
30	273,870	257,100	240,331	31,829	27,585	23,341	19,097	14,853	10,610	6,366
31	297,905	280,716	263,528	246,339	32,625	28,275	23,925	19,575	15,225	10,875
32	322,972	305,353	287,734	270,116	252,497	33,440	28,982	24,523	20,064	15,605
33	349,167	331,046	312,987	294,928	276,869	258,810	34,276	29,706	25,136	20,566

	BC	BD	BE	BF	BG	BH	BI	BJ	BK	BL	BM	BN
1												
2												
3												
4	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066
5	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
6												
7	-	-	-	-	-	-	-	-	-	-	-	-
8	-	-	-	-	-	-	-	-	-	-	-	-
9	-	-	-	-	-	-	-	-	-	-	-	-
10	-	-	-	-	-	-	-	-	-	-	-	-
11	-	-	-	-	-	-	-	-	-	-	-	-
12	-	-	-	-	-	-	-	-	-	-	-	-
13	-	-	-	-	-	-	-	-	-	-	-	-
14	-	-	-	-	-	-	-	-	-	-	-	-
15	-	-	-	-	-	-	-	-	-	-	-	-
16	-	-	-	-	-	-	-	-	-	-	-	-
17	-	-	-	-	-	-	-	-	-	-	-	-
18	-	-	-	-	-	-	-	-	-	-	-	-
19	-	-	-	-	-	-	-	-	-	-	-	-
20	-	-	-	-	-	-	-	-	-	-	-	-
21	-	-	-	-	-	-	-	-	-	-	-	-
22	-	-	-	-	-	-	-	-	-	-	-	-
23	-	-	-	-	-	-	-	-	-	-	-	-
24	-	-	-	-	-	-	-	-	-	-	-	-
25	-	-	-	-	-	-	-	-	-	-	-	-
26	-	-	-	-	-	-	-	-	-	-	-	-
27	-	-	-	-	-	-	-	-	-	-	-	-
28	-	-	-	-	-	-	-	-	-	-	-	-
29	-	-	-	-	-	-	-	-	-	-	-	-
30	2,122	-	-	-	-	-	-	-	-	-	-	-
31	6,525	2,175	-	-	-	-	-	-	-	-	-	-
32	11,147	6,688	2,229	-	-	-	-	-	-	-	-	-
33	15,996	11,425	6,855	2,285	-	-	-	-	-	-	-	-

	BO	BP	BQ	BR	BS	BT	BU	BV	BW	BX	BY	BZ	CA	CB	CC	CD	CE	CF
1																		
2																		
3																		
4	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084
5	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
6																		
7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
28	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
31	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
33	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

	CG	CH	CI	CJ	CK	CL	CM	CN	CO	CP	CQ	CR	CS	CT	CU	CV
1																
2																
3																
4	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100
5	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
6																
7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
28	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
31	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
33	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

	A	B	C	D	E	F	G	H
34		CF 28	2039	3,758,205	2,693,106		RR CF 28	2,693,106
35		CF 29	2040	5,379,168	2,760,434		RR CF 29	2,760,434
36		CF 30	2041		2,829,445		RR CF 30	2,829,445
37		CF 31	2042		2,900,181		RR CF 31	2,900,181
38		CF 32	2043		2,972,686		RR CF 32	2,972,686
39		CF 33	2044		3,047,003		RR CF 33	3,047,003
40		CF 34	2045		3,123,178		RR CF 34	3,123,178
41		CF 35	2046		3,201,257		RR CF 35	3,201,257
42								
43								
44								Prj #
45								Phase 1
46								Phase 2
47								Phase 3

	I	J	K	L	M	N	O	P	Q
34	2039	4,824,035	590,118	-	-	-	-	-	-
35	2040	4,944,636	566,889	-	-	-	-	-	-
36	2041	5,068,252	544,575	-	-	-	-	-	-
37	2042	5,194,959	523,139	-	-	-	-	-	-
38	2043	5,324,832	502,547	-	-	-	-	-	-
39	2044	5,457,953	482,765	-	-	-	-	-	-
40	2045	5,594,402	463,762	-	-	-	-	-	-
41	2046	5,734,262	445,508	-	-	-	-	-	-
42									
43									
44	Cap Ex	RR	PVRR	2012	2013	2014	2015	2016	2017
45	227,093,289	406,781,575	281,064,801	15,689,785	34,993,864	38,002,978	36,714,708	35,112,750	33,550,159
46	33,418,061	59,860,209	21,545,915	-	-	-	-	-	-
47	134,417,439	240,775,665	45,666,778	-	-	-	-	-	-

	R	S	T	U	V	W	X	Y	Z
34	-	-	-	-	-	-	-	-	-
35	-	-	-	-	-	-	-	-	-
36	-	-	-	-	-	-	-	-	-
37	-	-	-	-	-	-	-	-	-
38	-	-	-	-	-	-	-	-	-
39	-	-	-	-	-	-	-	-	-
40	-	-	-	-	-	-	-	-	-
41	-	-	-	-	-	-	-	-	-
42									
43									
44	2018	2019	2020	2021	2022	2023	2024	2025	2026
45	32,023,899	30,531,192	29,069,433	27,561,561	25,998,506	24,436,151	22,874,294	7,671,648	3,398,008
46	-	-	-	992,827	3,334,254	4,669,985	4,635,696	4,618,987	4,625,437
47	-	-	-	-	-	-	-	-	-

	AA	AB	AC	AD	AE	AF	AG	AH	AI
34	-	-	-	-	-	-	-	-	-
35	-	-	-	-	-	-	-	-	-
36	-	-	-	-	-	-	-	-	-
37	-	-	-	-	-	-	-	-	-
38	-	-	-	-	-	-	-	-	-
39	-	-	-	-	-	-	-	-	-
40	-	-	-	-	-	-	-	-	-
41	-	-	-	-	-	-	-	-	-
42									
43									
44	2027	2028	2029	2030	2031	2032	2033	2034	2035
45	2,629,606	2,175,299	1,722,693	1,271,816	822,711	375,424	80,967	27,779	18,168
46	4,640,493	4,664,250	4,561,106	4,326,481	4,093,490	3,861,573	3,630,523	2,536,930	1,161,661
47	-	-	1,840,532	7,708,300	14,045,004	16,193,844	15,873,951	15,564,707	15,265,009

	AJ	AK	AL	AM	AN	AO	AP	AQ	AR
34	-	-	-	243,419	478,608	457,202	436,365	416,054	396,229
35	-	-	-	-	249,505	490,573	468,633	447,275	426,456
36	-	-	-	-	-	255,743	502,838	480,348	458,456
37	-	-	-	-	-	-	262,136	515,409	492,357
38	-	-	-	-	-	-	-	268,690	528,294
39	-	-	-	-	-	-	-	-	275,407
40	-	-	-	-	-	-	-	-	-
41	-	-	-	-	-	-	-	-	-
42									
43									
44	2036	2037	2038	2039	2040	2041	2042	2043	2044
45	12,717	8,203	4,650	2,082	524	-	-	-	-
46	990,670	824,688	646,371	468,553	291,262	114,531	65,957	40,235	28,655
47	14,973,827	14,690,207	14,411,040	14,130,296	13,843,703	13,550,490	11,650,276	7,892,352	5,700,333

	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB
34	376,854	357,896	339,322	320,811	302,301	283,790	265,280	35,133	30,449	25,764
35	406,135	386,276	366,843	347,805	328,832	309,858	290,885	271,912	36,011	31,210
36	437,117	416,289	395,933	376,014	356,500	337,053	317,605	298,157	278,710	36,912
37	469,918	448,045	426,696	405,831	385,415	365,413	345,479	325,545	305,611	285,677
38	504,666	481,666	459,246	437,363	415,977	395,050	374,548	354,116	333,684	313,251
39	541,501	517,283	493,707	470,727	448,297	426,376	404,926	383,912	362,969	342,026
40	282,292	555,039	530,215	506,050	482,495	459,505	437,036	415,049	393,509	372,043
41	-	289,349	568,915	543,470	518,701	494,558	470,992	447,962	425,426	403,347
42										
43										
44	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054
45	-	-	-	-	-	-	-	-	-	-
46	18,761	10,744	4,859	1,232	-	-	-	-	-	-
47	5,682,407	5,664,170	5,349,032	4,739,599	4,141,148	3,570,972	3,068,043	2,638,823	2,245,633	1,865,713

	BC	BD	BE	BF	BG	BH	BI	BJ	BK	BL	BM	BN
34	21,080	16,395	11,711	7,027	2,342	-	-	-	-	-	-	-
35	26,408	21,607	16,805	12,004	7,202	2,401	-	-	-	-	-	-
36	31,990	27,069	22,147	17,225	12,304	7,382	2,461	-	-	-	-	-
37	37,835	32,790	27,745	22,701	17,656	12,612	7,567	2,522	-	-	-	-
38	292,819	38,780	33,610	28,439	23,268	18,098	12,927	7,756	2,585	-	-	-
39	321,083	300,140	39,750	34,450	29,150	23,850	18,550	13,250	7,950	2,650	-	-
40	350,576	329,110	307,643	40,744	35,311	29,879	24,446	19,014	13,581	8,149	2,716	-
41	381,344	359,341	337,338	315,334	41,762	36,194	30,626	25,057	19,489	13,921	8,352	2,784
42												
43												
44	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066
45	-	-	-	-	-	-	-	-	-	-	-	-
46	-	-	-	-	-	-	-	-	-	-	-	-
47	1,498,925	1,145,520	805,834	480,209	168,996	130,415	96,576	67,599	43,606	24,719	11,069	2,784

	BO	BP	BQ	BR	BS	BT	BU	BV	BW	BX	BY	BZ	CA	CB	CC	CD	CE	CF
34	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
36	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
37	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
38	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
39	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
40	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
41	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
42																		
43																		
44	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084
45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
46	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
47	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

	CG	CH	CI	CJ	CK	CL	CM	CN	CO	CP	CQ	CR	CS	CT	CU	CV
34	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
36	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
37	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
38	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
39	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
40	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
41	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
42																
43																
44	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100
45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
46	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
47	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Cell: C7
Comment: MSF:
Start Phase

Cell: C8
Comment: MSF:
End Phase

Cell: C13
Comment: MSF:
Start Phase

Cell: C14
Comment: MSF:
End Phase

Cell: C21
Comment: MSF:
Start Phase

Cell: C23
Comment: MSF:
End Phase

	A	B	C	D	E	F	G	H
1								
2								
3								
4								
5		Prj #	Years	PrjEng	CapacityLife-Landfill			
6			Pre-2012	76,183,457	76,183,457		Prj #	Cap Ex
7		CF 01	2012	173,586,225	173,586,225		RR CF 01	173,586,225
8		CF 02	2013	45,856,758	45,856,758		RR CF 02	45,856,758
9	Phase I 14.26 MCY	CF 03	2014	4,250,256	4,250,256		RR CF 03	4,250,256
10		CF 04	2015	700,000	290,333		RR CF 04	290,333
11		CF 05	2016	800,000	297,592		RR CF 05	297,592
12		CF 06	2017	1,799,908	305,031		RR CF 06	305,031
13		CF 07	2018	10,200,000	312,657		RR CF 07	312,657
14		CF 08	2019	14,200,000	320,474		RR CF 08	320,474
15		CF 09	2020	900,000	328,485		RR CF 09	328,485
16	Phase 2 14.48 MCY	CF 10	2021	900,000	336,698		RR CF 10	336,698
17		CF 11	2022	1,104,552	345,115		RR CF 11	345,115
18		CF 12	2023	1,170,825	353,743		RR CF 12	353,743
19		CF 13	2024	1,241,075	362,586		RR CF 13	362,586
20		CF 14	2025	1,315,539	371,651		RR CF 14	371,651
21		CF 15	2026	-	12,427,710		RR CF 15	12,427,710
22		CF 16	2027	-	17,301,321		RR CF 16	17,301,321
23		CF 17	2028	-	397,822		RR CF 17	397,822
24		CF 18	2029	-	407,767		RR CF 18	407,767
25		CF 19	2030	-	417,961		RR CF 19	417,961
26		CF 20	2031	-	428,410		RR CF 20	428,410
27		CF 21	2032	-	439,121		RR CF 21	439,121
28	Phase 3 23.02 MCY	CF 22	2033	-	450,099		RR CF 22	450,099
29		CF 23	2034	-	461,351		RR CF 23	461,351
30		CF 24	2035	-	472,885		RR CF 24	472,885
31		CF 25	2036	-	484,707		RR CF 25	484,707
32		CF 26	2037	-	496,825		RR CF 26	496,825
33		CF 27	2038	-	509,245		RR CF 27	509,245

	I	J	K	L	M	N	O	P	Q
1									
2									
3									
4				2012	2013	2014	2015	2016	2017
5				9.04%	13.86%	13.32%	12.80%	12.30%	11.82%
6	Cash Flow Year	RR	PVRR						
7	2012	375,642,792	218,622,332	15,689,785	24,051,031	23,116,894	22,219,419	21,355,827	20,523,585
8	2013	99,234,606	54,127,528	-	4,144,814	6,353,628	6,106,855	5,869,766	5,641,629
9	2014	9,197,608	4,701,815	-	-	384,164	588,889	566,017	544,042
10	2015	628,285	301,011	-	-	-	26,242	40,227	38,664
11	2016	643,992	289,163	-	-	-	-	26,898	41,232
12	2017	660,092	277,780	-	-	-	-	-	27,571
13	2018	676,594	266,846	-	-	-	-	-	-
14	2019	693,509	256,343	-	-	-	-	-	-
15	2020	710,847	246,252	-	-	-	-	-	-
16	2021	728,618	236,559	-	-	-	-	-	-
17	2022	746,833	227,247	-	-	-	-	-	-
18	2023	765,504	218,302	-	-	-	-	-	-
19	2024	784,642	209,709	-	-	-	-	-	-
20	2025	804,258	201,455	-	-	-	-	-	-
21	2026	26,893,721	6,313,475	-	-	-	-	-	-
22	2027	37,440,278	8,237,440	-	-	-	-	-	-
23	2028	860,891	177,516	-	-	-	-	-	-
24	2029	882,413	170,528	-	-	-	-	-	-
25	2030	904,474	163,816	-	-	-	-	-	-
26	2031	927,085	157,368	-	-	-	-	-	-
27	2032	950,263	151,173	-	-	-	-	-	-
28	2033	974,019	145,223	-	-	-	-	-	-
29	2034	998,370	139,506	-	-	-	-	-	-
30	2035	1,023,329	134,015	-	-	-	-	-	-
31	2036	1,048,912	128,740	-	-	-	-	-	-
32	2037	1,075,135	123,672	-	-	-	-	-	-
33	2038	1,102,013	118,804	-	-	-	-	-	-

	R	S	T	U	V	W	X	Y	Z
1									
2									
3	CER RR Percentage								
4	2018	2019	2020	2021	2022	2023	2024	2025	2026
5	11.36%	10.91%	10.48%	10.05%	9.62%	9.19%	8.76%	8.33%	7.90%
6									
7	19,720,350	18,943,933	18,192,322	17,444,808	16,697,283	15,949,760	15,202,237	14,454,714	13,707,191
8	5,421,773	5,209,580	5,004,472	4,805,917	4,608,444	4,410,968	4,213,493	4,016,017	3,818,542
9	522,897	502,520	482,852	463,842	445,439	427,136	408,833	390,530	372,227
10	37,163	35,719	34,327	32,983	31,685	30,428	29,177	27,927	26,677
11	39,631	38,092	36,612	35,185	33,808	32,477	31,188	29,907	28,625
12	42,263	40,622	39,045	37,527	36,065	34,653	33,289	31,968	30,655
13	28,260	43,320	41,637	40,021	38,465	36,966	35,520	34,121	32,767
14	-	28,966	44,403	42,678	41,021	39,427	37,890	36,408	34,974
15	-	-	29,691	45,513	43,745	42,047	40,413	38,838	37,318
16	-	-	-	30,433	46,651	44,839	43,098	41,423	39,809
17	-	-	-	-	31,194	47,817	45,960	44,175	42,459
18	-	-	-	-	-	31,973	49,012	47,109	45,280
19	-	-	-	-	-	-	32,773	50,238	48,287
20	-	-	-	-	-	-	-	33,592	51,494
21	-	-	-	-	-	-	-	-	1,123,292
22	-	-	-	-	-	-	-	-	-
23	-	-	-	-	-	-	-	-	-
24	-	-	-	-	-	-	-	-	-
25	-	-	-	-	-	-	-	-	-
26	-	-	-	-	-	-	-	-	-
27	-	-	-	-	-	-	-	-	-
28	-	-	-	-	-	-	-	-	-
29	-	-	-	-	-	-	-	-	-
30	-	-	-	-	-	-	-	-	-
31	-	-	-	-	-	-	-	-	-
32	-	-	-	-	-	-	-	-	-
33	-	-	-	-	-	-	-	-	-

	AA	AB	AC	AD	AE	AF	AG	AH	AI
1									
2									
3									
4	2027	2028	2029	2030	2031	2032	2033	2034	2035
5	7.47%	7.04%	6.60%	6.17%	5.74%	5.31%	4.97%	4.71%	4.46%
6									
7	12,959,666	12,212,143	11,464,622	10,717,099	9,969,576	9,222,053	8,625,500	8,179,916	7,734,330
8	3,621,067	3,423,591	3,226,116	3,028,641	2,831,166	2,633,691	2,436,215	2,278,622	2,160,911
9	353,923	335,620	317,317	299,014	280,711	262,408	244,105	225,802	211,195
10	25,427	24,176	22,926	21,676	20,426	19,175	17,925	16,675	15,424
11	27,344	26,062	24,781	23,499	22,218	20,936	19,655	18,373	17,092
12	29,341	28,027	26,714	25,400	24,087	22,773	21,460	20,146	18,832
13	31,421	30,075	28,728	27,382	26,035	24,689	23,342	21,996	20,650
14	33,587	32,206	30,826	29,446	28,066	26,686	25,306	23,926	22,546
15	35,849	34,426	33,012	31,597	30,182	28,768	27,353	25,939	24,524
16	38,251	36,745	35,287	33,837	32,387	30,937	29,487	28,037	26,587
17	40,804	39,207	37,663	36,169	34,683	33,197	31,710	30,224	28,738
18	43,520	41,824	40,187	38,605	37,073	35,550	34,027	32,503	30,980
19	46,412	44,608	42,870	41,192	39,570	38,000	36,439	34,877	33,316
20	49,494	47,572	45,723	43,941	42,222	40,559	38,950	37,350	35,749
21	1,721,906	1,655,028	1,590,774	1,528,946	1,469,363	1,411,856	1,356,269	1,302,459	1,248,941
22	1,563,799	2,397,164	2,304,058	2,214,607	2,128,533	2,045,584	1,965,525	1,888,140	1,813,227
23	-	35,958	55,120	52,979	50,922	48,943	47,036	45,195	43,415
24	-	-	36,856	56,498	54,303	52,195	50,166	48,211	46,325
25	-	-	-	37,778	57,910	55,661	53,500	51,421	49,417
26	-	-	-	-	38,722	59,358	57,052	54,837	52,706
27	-	-	-	-	-	39,690	60,842	58,479	56,208
28	-	-	-	-	-	-	40,683	62,363	59,941
29	-	-	-	-	-	-	-	41,700	63,922
30	-	-	-	-	-	-	-	-	42,742
31	-	-	-	-	-	-	-	-	-
32	-	-	-	-	-	-	-	-	-
33	-	-	-	-	-	-	-	-	-

	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS
1										
2										
3										
4	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045
5	4.20%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
6										
7	7,288,745	-	-	-	-	-	-	-	-	-
8	2,043,200	1,925,488	-	-	-	-	-	-	-	-
9	200,285	189,375	178,465	-	-	-	-	-	-	-
10	14,427	13,681	12,936	12,191	-	-	-	-	-	-
11	15,810	14,787	14,023	13,260	12,496	-	-	-	-	-
12	17,519	16,205	15,157	14,374	13,591	12,808	-	-	-	-
13	19,303	17,957	16,610	15,536	14,733	13,931	13,128	-	-	-
14	21,166	19,786	18,406	17,026	15,924	15,102	14,279	13,456	-	-
15	23,110	21,695	20,280	18,866	17,451	16,322	15,479	14,636	13,793	-
16	25,137	23,687	22,237	20,787	19,338	17,888	16,731	15,866	15,002	14,138
17	27,252	25,766	24,280	22,793	21,307	19,821	18,335	17,149	16,263	15,377
18	29,457	27,933	26,410	24,887	23,363	21,840	20,317	18,793	17,577	16,669
19	31,754	30,193	28,632	27,070	25,509	23,947	22,386	20,824	19,263	18,017
20	34,149	32,548	30,948	29,347	27,747	26,146	24,546	22,945	21,345	19,745
21	1,195,423	1,141,905	1,088,387	1,034,869	981,351	927,833	874,315	820,797	767,279	713,761
22	1,738,722	1,664,217	1,589,711	1,515,205	1,440,700	1,366,194	1,291,689	1,217,183	1,142,678	1,068,172
23	41,693	39,980	38,267	36,553	34,840	33,127	31,414	29,701	27,988	26,274
24	44,501	42,735	40,979	39,223	37,467	35,711	33,955	32,199	30,443	28,687
25	47,483	45,613	43,804	42,004	40,204	38,404	36,604	34,804	33,004	31,204
26	50,652	48,670	46,754	44,899	43,054	41,209	39,364	37,519	35,674	33,829
27	54,024	51,918	49,887	47,922	46,021	44,130	42,239	40,348	38,457	36,566
28	57,614	55,374	53,216	51,134	49,120	47,172	45,233	43,295	41,357	39,418
29	61,439	59,054	56,759	54,547	52,412	50,348	48,351	46,364	44,377	42,391
30	65,520	62,975	60,530	58,178	55,910	53,722	51,607	49,560	47,523	45,487
31	43,811	67,158	64,550	62,044	59,632	57,308	55,065	52,897	50,799	48,711
32	-	44,906	68,837	66,163	63,595	61,123	58,741	56,442	54,220	52,069
33	-	-	46,029	70,558	67,817	65,185	62,651	60,209	57,853	55,575

	AT	AU	AV	AW	AX	AY	AZ	BA	BB	BC	BD
1											
2											
3											
4	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056
5	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
6											
7	-	-	-	-	-	-	-	-	-	-	-
8	-	-	-	-	-	-	-	-	-	-	-
9	-	-	-	-	-	-	-	-	-	-	-
10	-	-	-	-	-	-	-	-	-	-	-
11	-	-	-	-	-	-	-	-	-	-	-
12	-	-	-	-	-	-	-	-	-	-	-
13	-	-	-	-	-	-	-	-	-	-	-
14	-	-	-	-	-	-	-	-	-	-	-
15	-	-	-	-	-	-	-	-	-	-	-
16	-	-	-	-	-	-	-	-	-	-	-
17	14,491	-	-	-	-	-	-	-	-	-	-
18	15,761	14,853	-	-	-	-	-	-	-	-	-
19	17,086	16,155	15,225	-	-	-	-	-	-	-	-
20	18,467	17,513	16,559	15,605	-	-	-	-	-	-	-
21	660,242	617,533	585,632	553,731	521,829	-	-	-	-	-	-
22	993,667	919,161	859,703	815,291	770,880	726,468	-	-	-	-	-
23	24,561	22,848	21,135	19,768	18,747	17,725	16,704	-	-	-	-
24	26,931	25,175	23,419	21,663	20,262	19,215	18,169	17,122	-	-	-
25	29,404	27,605	25,805	24,005	22,205	20,768	19,696	18,623	17,550	-	-
26	31,984	30,140	28,295	26,450	24,605	22,760	21,288	20,188	19,088	17,989	-
27	34,675	32,784	30,893	29,002	27,111	25,220	23,329	21,820	20,693	19,566	18,438
28	37,480	35,542	33,604	31,665	29,727	27,789	25,851	23,912	22,365	21,210	20,055
29	40,404	38,417	36,430	34,444	32,457	30,470	28,484	26,497	24,510	22,925	21,740
30	43,450	41,414	39,378	37,341	35,305	33,268	31,232	29,196	27,159	25,123	23,498
31	46,624	44,537	42,449	40,362	38,275	36,187	34,100	32,013	29,925	27,838	25,751
32	49,929	47,790	45,650	43,511	41,371	39,232	37,092	34,953	32,813	30,674	28,534
33	53,370	51,177	48,984	46,791	44,598	42,405	40,212	38,019	35,826	33,633	31,440

	BE	BF	BG	BH	BI	BJ	BK	BL	BM	BN	BO	BP
1												
2												
3												
4	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068
5	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
6												
7	-	-	-	-	-	-	-	-	-	-	-	-
8	-	-	-	-	-	-	-	-	-	-	-	-
9	-	-	-	-	-	-	-	-	-	-	-	-
10	-	-	-	-	-	-	-	-	-	-	-	-
11	-	-	-	-	-	-	-	-	-	-	-	-
12	-	-	-	-	-	-	-	-	-	-	-	-
13	-	-	-	-	-	-	-	-	-	-	-	-
14	-	-	-	-	-	-	-	-	-	-	-	-
15	-	-	-	-	-	-	-	-	-	-	-	-
16	-	-	-	-	-	-	-	-	-	-	-	-
17	-	-	-	-	-	-	-	-	-	-	-	-
18	-	-	-	-	-	-	-	-	-	-	-	-
19	-	-	-	-	-	-	-	-	-	-	-	-
20	-	-	-	-	-	-	-	-	-	-	-	-
21	-	-	-	-	-	-	-	-	-	-	-	-
22	-	-	-	-	-	-	-	-	-	-	-	-
23	-	-	-	-	-	-	-	-	-	-	-	-
24	-	-	-	-	-	-	-	-	-	-	-	-
25	-	-	-	-	-	-	-	-	-	-	-	-
26	-	-	-	-	-	-	-	-	-	-	-	-
27	-	-	-	-	-	-	-	-	-	-	-	-
28	18,899	-	-	-	-	-	-	-	-	-	-	-
29	20,556	19,372	-	-	-	-	-	-	-	-	-	-
30	22,284	21,070	19,856	-	-	-	-	-	-	-	-	-
31	24,085	22,841	21,597	20,352	-	-	-	-	-	-	-	-
32	26,395	24,687	23,412	22,137	20,861	-	-	-	-	-	-	-
33	29,247	27,054	25,304	23,997	22,690	21,383	-	-	-	-	-	-

	BQ	BR	BS	BT	BU	BV	BW	BX	BY	BZ	CA	CB	CC	CD	CE	CF	CG
1																	
2																	
3																	
4	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085
5	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
6																	
7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
28	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
31	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
33	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

	CH	CI	CJ	CK	CL	CM	CN	CO	CP	CQ	CR	CS	CT	CU	CV	CW	CX	CY
1																		
2																		
3																		
4	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100	2101	2102	2103
5	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
6																		
7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
28	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
31	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
33	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

	CZ	DA	DB
1			
2			
3			
4	2104	2105	2106
5	0.00%	0.00%	0.00%
6			
7	-	-	-
8	-	-	-
9	-	-	-
10	-	-	-
11	-	-	-
12	-	-	-
13	-	-	-
14	-	-	-
15	-	-	-
16	-	-	-
17	-	-	-
18	-	-	-
19	-	-	-
20	-	-	-
21	-	-	-
22	-	-	-
23	-	-	-
24	-	-	-
25	-	-	-
26	-	-	-
27	-	-	-
28	-	-	-
29	-	-	-
30	-	-	-
31	-	-	-
32	-	-	-
33	-	-	-

	A	B	C	D	E	F	G	H
34		CF 28	2039	-	521,976		RR CF 28	521,976
35		CF 29	2040	-	535,026		RR CF 29	535,026
36		CF 30	2041		548,401		RR CF 30	548,401
37		CF 31	2042		562,111		RR CF 31	562,111
38		CF 32	2043		576,164		RR CF 32	576,164
39		CF 33	2044		590,568		RR CF 33	590,568
40		CF 34	2045		605,333		RR CF 34	605,333
41		CF 35	2046		620,466		RR CF 35	620,466
42								
43								
44								
45								
46							Prj #	Cap Ex
47							Phase 1	227,317,605
48							Phase 2	39,255,269

	I	J	K	L	M	N	O	P	Q
34	2039	1,129,564	114,128	-	-	-	-	-	-
35	2040	1,157,803	109,635	-	-	-	-	-	-
36	2041	1,186,748	105,320	-	-	-	-	-	-
37	2042	1,216,416	101,174	-	-	-	-	-	-
38	2043	1,246,827	97,192	-	-	-	-	-	-
39	2044	1,277,997	93,366	-	-	-	-	-	-
40	2045	1,309,947	89,691	-	-	-	-	-	-
41	2046	1,342,696	86,160	-	-	-	-	-	-
42									
43									
44									
45									
46	RR	PVRR	2012	2013	2014	2015	2016	2017	2018
47	491,918,180	280,182,343	15,689,785	28,195,846	29,854,686	28,941,404	27,858,735	26,816,724	25,812,337
48	84,948,900	16,957,940	-	-	-	-	-	-	-

	R	S	T	U	V	W	X	Y	Z
34	-	-	-	-	-	-	-	-	-
35	-	-	-	-	-	-	-	-	-
36	-	-	-	-	-	-	-	-	-
37	-	-	-	-	-	-	-	-	-
38	-	-	-	-	-	-	-	-	-
39	-	-	-	-	-	-	-	-	-
40	-	-	-	-	-	-	-	-	-
41	-	-	-	-	-	-	-	-	-
42									
43									
44									
45									
46	2019	2020	2021	2022	2023	2024	2025	2026	2027
47	24,842,752	23,905,361	22,978,907	22,053,800	21,128,492	20,202,883	19,276,967	18,316,303	17,336,104
48	-	-	-	-	-	-	-	1,123,292	3,285,706

	AA	AB	AC	AD	AE	AF	AG	AH	AI
34	-	-	-	-	-	-	-	-	-
35	-	-	-	-	-	-	-	-	-
36	-	-	-	-	-	-	-	-	-
37	-	-	-	-	-	-	-	-	-
38	-	-	-	-	-	-	-	-	-
39	-	-	-	-	-	-	-	-	-
40	-	-	-	-	-	-	-	-	-
41	-	-	-	-	-	-	-	-	-
42									
43									
44									
45									
46	2028	2029	2030	2031	2032	2033	2034	2035	2036
47	16,356,284	15,376,772	14,397,499	13,418,402	12,439,422	11,611,474	10,974,386	10,380,875	9,791,313
48	4,088,149	3,986,809	3,890,808	3,799,754	3,713,287	3,631,074	3,552,804	3,476,844	3,400,881

	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS
34	-	-	-	47,179	72,322	69,513	66,814	64,217	61,715	59,299
35	-	-	-	-	48,359	74,130	71,251	68,484	65,823	63,258
36	-	-	-	-	-	49,568	75,983	73,032	70,197	67,468
37	-	-	-	-	-	-	50,807	77,883	74,858	71,952
38	-	-	-	-	-	-	-	52,077	79,830	76,729
39	-	-	-	-	-	-	-	-	53,379	81,825
40	-	-	-	-	-	-	-	-	-	54,714
41	-	-	-	-	-	-	-	-	-	-
42										
43										
44										
45										
46	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046
47	2,359,102	408,384	216,137	191,459	167,805	145,200	123,671	103,243	83,946	65,806
48	3,324,505	3,247,708	3,170,478	3,092,805	3,014,677	2,936,083	2,857,012	2,777,452	2,697,390	2,616,814

	AT	AU	AV	AW	AX	AY	AZ	BA	BB	BC	BD
34	56,965	54,705	52,457	50,209	47,961	45,713	43,466	41,218	38,970	36,722	34,474
35	60,782	58,389	56,072	53,768	51,464	49,160	46,856	44,552	42,248	39,944	37,640
36	64,839	62,301	59,849	57,474	55,112	52,751	50,389	48,028	45,666	43,304	40,943
37	69,155	66,460	63,859	61,345	58,911	56,490	54,070	51,649	49,228	46,808	44,387
38	73,750	70,884	68,122	65,455	62,878	60,384	57,902	55,421	52,940	50,459	47,978
39	78,647	75,594	72,656	69,825	67,092	64,450	61,893	59,350	56,807	54,264	51,720
40	83,871	80,614	77,484	74,472	71,570	68,769	66,062	63,441	60,834	58,227	55,620
41	56,082	85,968	82,629	79,421	76,334	73,359	70,488	67,713	65,027	62,355	59,683
42											
43											
44											
45											
46	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057
47	48,522	31,784	15,605	-	-	-	-	-	-	-	-
48	2,489,037	2,354,503	2,235,993	2,118,695	1,512,587	747,282	693,713	641,650	591,039	541,902	494,275

	BE	BF	BG	BH	BI	BJ	BK	BL	BM	BN	BO	BP
34	32,226	29,979	27,731	25,937	24,597	23,257	21,917	-	-	-	-	-
35	35,336	33,032	30,728	28,424	26,585	25,212	23,839	22,465	-	-	-	-
36	38,581	36,220	33,858	31,496	29,135	27,250	25,842	24,435	23,027	-	-	-
37	41,966	39,546	37,125	34,704	32,284	29,863	27,931	26,488	25,046	23,603	-	-
38	45,497	43,015	40,534	38,053	35,572	33,091	30,610	28,630	27,151	25,672	24,193	-
39	49,177	46,634	44,091	41,548	39,004	36,461	33,918	31,375	29,345	27,829	26,313	24,797
40	53,013	50,407	47,800	45,193	42,586	39,980	37,373	34,766	32,159	30,079	28,525	26,971
41	57,011	54,339	51,667	48,995	46,323	43,651	40,979	38,307	35,635	32,963	30,831	29,238
42												
43												
44												
45												
46	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069
47	-	-	-	-	-	-	-	-	-	-	-	-
48	448,195	403,703	360,837	319,638	280,148	242,409	206,466	172,363	140,146	109,862	81,007	53,063

	BQ	BR	BS	BT	BU	BV	BW	BX	BY	BZ	CA	CB	CC	CD	CE	CF	CG
34	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
36	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
37	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
38	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
39	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
40	25,417	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
41	27,646	26,053	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
42																	
43																	
44																	
45																	
46	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086
47	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
48	26,053	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

	CH	CI	CJ	CK	CL	CM	CN	CO	CP	CQ	CR	CS	CT	CU	CV	CW	CX	CY
34	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
36	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
37	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
38	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
39	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
40	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
41	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
42																		
43																		
44																		
45																		
46	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100				
47	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
48	-	-	-	-	-	-	-	-	-	-	-	-	-	-				

	CZ	DA	DB
34	-	-	-
35	-	-	-
36	-	-	-
37	-	-	-
38	-	-	-
39	-	-	-
40	-	-	-
41	-	-	-
42			
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47			
48			

Cell: C7
Comment: MSF:
Start Phase

Cell: C8
Comment: MSF:
End Phase

Cell: C13
Comment: MSF:
Start Phase

Cell: C14
Comment: MSF:
End Phase

Cell: C21
Comment: MSF:
Start Phase

Cell: C23
Comment: MSF:
End Phase

From: Joyce, Jeff(/O=LGE/OU=LOUISVILLE/CN=RECIPIENTS/CN=WEB/CN=JEFFJOYCE)
To: Schram, Chuck
CC:
BCC:
Subject: FW: Sterling Ventures Gypsum Proposal
Sent: 01/20/2012 03:18:25 PM -0500 (EST)
Attachments: Exhibit 1.pdf; Exhibit 2.pdf; Exhibit 3.pdf; Exhibit 4.pdf;

From: John Walters [mailto:johnwalters@sterlingventures.com]
Sent: Thursday, January 19, 2012 2:49 PM
To: Joyce, Jeff; Pfeiffer, Caryl
Cc: Alex Boone
Subject: Sterling Ventures Gypsum Proposal

Jeff

I understand from Scott Straight that you are now in charge of doing the PVRR comparative analysis of Sterling's proposal to use the new landfill at Ghent for ash only, with gypsum disposal at our underground mine. Attached is our effort at a PVRR comparative analysis of all gypsum going to Sterling, verses into your new landfill. We based our comparative PVRR analysis on the projected O&M and capital cost for the landfill that KU filed with the PSC in 2009, and confirmed in 2011.

Attached Exhibit 1 is a general summary of our proposal, as well as the assumptions used in the PVRR analysis of that proposal. Exhibits 2 and 3 are PVRR analyses under two separate scenarios. The first, Exhibit 2, is a straight PVRR comparison to the landfill, as detailed in the 2009 filings with the PSC, versus using our underground limestone mine for gypsum beneficial reuse disposal. In this scenario, our proposal is the least cost alternative by $260,498,235.00 (PVRR least cost alternative by $86,599,008.00).

Exhibit 3 is a PVRR comparison assuming KU purchases scrubber limestone from Sterling, which is then backhauled to Ghent. Here, our proposal is the least cost alternative by $342,795,003.00 (PVRR least cost alternative by $109,405,671.00). In both PVRR analyses, $222,368,117.00 of the saving comes from a reduction in Return on Equity from reduced capital costs. As you will see, Exhibit 3 assumes a delivered scrubber stone price of $8.50 ($7.00 stone with $1.50 trucking allocation out of the $4.50 round trip gypsum trucking), which based on documents filed with the PSC, should approximate the delivered cost of scrubber stone from Mulzer.

Exhibit 4 is the PVRR comparative analysis from Exhibits 2 and 3 in the table format that Charles Schram identified that you would use in your PVRR analysis of beneficial reuse opportunities.

I also understand from documents KU filed with the PSC that the landfill's CCP transport system cost may be significantly over the original projection, and that the projected capital cost of Phase I has increased from $204,000,000 to $283,000,000. Please note that the increase in the cost of Phase I has not been included in our PVRR analysis, and therefore the savings from our proposal may increase as a result of the additional capital required for Phase I.

As you can see from our projections, in addition to O&M cost savings, you can delay Phase II of the Ghent Landfill project by eleven years, and completely eliminate Phase III. You can also avoid purchasing gypsum handling equipment. However, these savings assume that all gypsum is beneficially reused at Sterling's underground mine starting with the opening of Phase I in 2013.

In Scott Straight's email to me indicating that you are now in charge of the PVRR comparative analysis, he stated that Sterling's proposal "could have merit in a few years to defer the next phased expansion of the landfill", but that "[t]he next phase of the landfill is years away…." I must admit that I am confused by Scott's conclusion. It would appear that if the ability to avoid placing gypsum in the Ghent landfill "could have merit in a few years," it also possibly has merit today. Our permit for your gypsum is approved and in place.

As indicated above, failing to take advantage of the Sterling opportunity in 2013 when the landfill opens would result in the unnecessary purchase of gypsum related equipment, and the placement of approximately 850,000 cubic yards per year of gypsum into the landfill, thereby reducing its life. The projected savings from our proposal between 2012 and 2019 (the projected opening of Phase II) is $41,900,000.00, without backhauling limestone, and $54,941,000.00 if you take advantage of the limestone backhaul option.

If you anticipate opening the landfill in 2013, planning needs to begin immediately if you are going to take advantage of our beneficial reuse opportunity. We need to address numerous details and logistics, as well as negotiate a contract. In addition, as indicated above, the greatest saving potential for you occurs when you purchase hi-calcium scrubber limestone from Sterling. My understanding from documents filed with the PSC, the existing contract with Mulzer Crushed Stone for Ghent's scrubber limestone is a 9-year contract ending late 2014, with an "opt-out" provision in 2012. I also understand KU's normal practice is to enter into long terms contracts for scrubber stone. If you want to take full advantage of the potential savings, we would also need to negotiate a contract for limestone.

There are obviously numerous details we need to discuss in order for you to complete your own PVRR analysis of our proposal. Could you please let me know within the next couple of days if you are planning to do your PVRR analysis now, or as Scott indicated, you will be delaying that analysis for a few years?

Thank you for your consideration. I look forward to hearing from you.

John

John W. Walters, Jr.
Sterling Ventures, LLC
376 South Broadway
Lexington, KY 40508
Phone (859) 259-9600
Cell (859) 621-3990
Fax (859) 259-9601

johnwalters@sterlingventures.com

GHENT STATION ALTERNATIVE FOR CCP/GYPSUM DISPOSAL

Background

Sterling Materials is an active underground limestone mine located in Verona, Kentucky, approximately 20 miles from Kentucky Utilities Company's Ghent Station. Sterling currently mines between 1,000,000 and 1,600,000 tons of limestone per year, and has been in operation since 2000.

In addition to producing limestone for the general aggregate construction market, Sterling also mines high calcium limestone for Mississippi Lime Company for use in Mississippi Lime's kiln located on Sterling's property. This high calcium limestone is also suitable for use as scrubber stone in Ghent's limestone FGD scrubber system.

In November 2010, Sterling obtained a Beneficial Reuse Special Waste Permit from the Kentucky Department of Environmental Protection, Division of Waste Management specifically allowing the beneficial reuse of Ghent's FGD gypsum in Sterling's mine.

KU has proposed building a new landfill at Ghent in three phases for an estimated total cost of $360,000,000 to handle the plant's three coal combustion by-products ("CCPs") through 2037[1]. KU forecasted the following wet storage CCP production volumes for Ghent Station (Cubic Yards):

Year	Fly Ash	Bottom Ash	Gypsum
2009	540,000	140,000	880,000
2010	550,000	150,000	1,090,000
2011	580,000	150,000	1,120,000
2012	550,000	150,000	1,060,000
2013	550,000	150,000	1,090,000

Source: Coal Combustion Byproduct Plan for Ghent Station June 2009 (the "Ghent CCP Plan", page 7)

Ghent's FGD gypsum is currently placed in a wet gypsum stacking pond. Ghent also has a contract to supply CertainTeed, Inc. with gypsum, and KU has estimated that CertainTeed will purchase approximately 222,000 cubic yards per year of gypsum from Ghent. As a result, Ghent will be required to continue diverting a portion of its gypsum production to the gypsum stacking pond.

Alternative Proposal for Gypsum Disposal at Sterling Materials' Mine

Sterling Materials is proposing that Ghent send all of its gypsum production (net of sales CertainTeed) to Sterling's mine for beneficial reuse, with Ghent's with the new landfill being used for ash disposal only. Sterling estimates that the PVRR cost saving from the beneficial reuse of Ghent's gypsum is at least $80,000,000. The substantial saving are generated from the ability to significantly delay the construction of phase 2 of the landfill, completely eliminate phase 3, and eliminate gypsum related

[1] Phase I cost thru 2018 of $203,969,979 as set forth in Revenue Requirement Summary for Project 30 – Ghent Landfill Phase I attached. Total project capital cost estimated to be $360,000,000 per direct testimony of John Voyles before the Kentucky Public Service Commission in Case No. 2009-00197.

capital cost and expenses associated with the landfill (all gypsum continue to be placed in stacking pond for transfer to CertainTeed and Sterling Materials).

Sterling is not proposing that the Ghent landfill not be built, but rather that KU take advantage of Sterling's Beneficial Reuse Permit so that the life of the landfill can be extended, and capital and operating cost be eliminated, by diverting the gypsum that would have been placed in the landfill to Sterling's mine. The attached PVRR analysis assumes that all gypsum would be diverted beginning with the opening of the new landfill.

Assumptions in Ghent Project 30 PVRR Analysis

1. Total price for loading, hauling and fees to Sterling Materials of $10.50 in 2013.
2. Net CCP production of approximately 868,000 cubic yards (1,090,000 – 222,000 to CertainTeed).
3. Cubic yards to ton conversion factor – cy x 1.155 (based on Trans Ash conversion assumption of 1.3 MCY equals 1.5 million tons as hauled - see page 10 of Ghent CCP Plan).
4. Reduce Phase I construction cost by $53,110,000[2] by continuing to place gypsum temporarily in existing gypsum stacking pond until shipment to Sterling.

Dry Gypsum Handling System	$36,800,000
Gypsum Fines Project	$12,600,000
Gypsum Dewatering Facility Earthwork	$ 3,710,000

5. Phase III landfill construction cost eliminated. Phase II construction delayed from 2018 to 2030.
   - Phase I capacity – 14.7 MCY (See Ghent CCP Plan page 12)
   - Ash Production – 700,000 MCY (See Ghent CCP Plan page 7)
   - Phase I life until full – 21 years
6. Total Phase II and III construction costs - $157,421,024 (timing and amounts of expenditures based retirement studies analysis in PSC Case No. 2011-00162)
   - Phase II construction cost - $40,000,000
   - Phase III construction cost - $117,421,024
7. Eliminate following Ghent Landfill Operating Expenses 2013 Estimates (See Ghent Landfill - Phase I attached)

Dry Gypsum Handling System	$ 682,495
Hauling Gypsum to Landfill	
Loading	$1,746,384
Phase I-2.25 mile round trip	$3,997,156
Landfilling Gypsum	$3,143,492

8. Continue 2018 Annual Depreciation Rate of 2.7899% on Eligible Capital through 2037
9. Continue 2018 Property Tax Expense Rate of .1259% on Eligible Capital through 2037
10. Apply KU O&M Escalation Rate of 6% and Discount Rate of 7.81% (See Ghent CCP Plan, page 22).

[2] See Ghent Landfill - Phase I attached.

Purchase of Scrubber Stone from Sterling

Sterling Materials mines a high calcium seam of limestone in its 2nd and 3rd levels that will meet, and possibly exceed, Ghent's calcium specifications for scrubber stone. Based on general industry knowledge, without verification, it is believed that Ghent's current cost of scrubber stone FOB plant is approximately $8.50.

The proposed price of $10.50 for gypsum disposal at Sterling includes $4.50 per ton for transportation, based upon an assumed round trip turn of 1.5 hours, and $75.00 per hour to haul 25 tons.

Sterling is proposing to sell high calcium limestone to Ghent for $7.00 per ton (as of October, 2011) and backhauling the stone to Ghent. If a $1.50 per ton trucking fee is assigned to the transportation of the limestone, Ghent will incur no additional cost for it scrubber stone. However, reducing the transportation component of the gypsum disposal cost by $1.50 reduces the proposed disposal cost from $10.50 to $9.00 per ton, and correspondingly increases the PVRR saving advantage from approximately $80,000,000 to over $100,000,000.

Construct Ash Storage Pond at Site M (see Ghent CCP Plan, Page 12)

It would appear that transporting gypsum to Sterling's mine, then using Site M as an ash landfill, verses Site E/F, would substantially reduce ash disposal cost and further increase the PVRR saving from disposing all of Ghent's gypsum at Sterling.

Site M is substantially closer to Ghent than Site E/F. The estimated cost of hauling fly and bottom ash to Site E/F is $2,822,723 in 2013, and the corresponding haul Road maintenance cost is $53,529. Even reducing those costs by a modest 50% for the haul to Site M verses site E/F would produce another $21,800,000 in PVRR savings.

Revenue Requirments Summary
Gypsum Disposal at Sterling Materials

			2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Revenue Requirement													
Eligible Plant			$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 203,078,976	$ 204,078,976	$ 212,078,976	$ 228,078,976
Less Gypsum Plant Requirements/Phase Delays			$ -	$ (14,090,000)	$ (40,060,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,610,000)	$ (54,610,000)	$ (62,610,000)	$ (78,610,000)
Revised Eligible Plant			$ 4,321,671	$ 32,388,846	$ 65,425,803	$ 124,467,356	$ 138,023,918	$ 148,831,953	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976
Less Accumulated Depreciation							$ (3,690,414)	$ (7,842,826)	$ (12,013,010)	$ (16,183,194)	$ (20,353,378)	$ (24,523,563)	$ (28,693,747)
Less Deferred Tax Balance							$ (528,683)	$ (2,857,926)	$ (4,921,730)	$ (6,724,117)	$ (8,277,719)	$ (9,603,427)	$ (11,236,471)
Environmental Compliance Rate Base			$ 4,321,671	$ 32,388,846	$ 65,425,803	$ 124,467,356	$ 133,804,821	$ 138,131,202	$ 132,534,236	$ 126,561,665	$ 120,837,879	$ 115,341,986	$ 109,538,758
Rate of Return			11.1%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
Assumed Tons (1.155)	1,000,000		$ 480,509	$ 3,553,056	$ 7,177,211	$ 13,654,069	$ 14,678,389	$ 15,152,593	$ 14,539,006	$ 13,883,815	$ 13,255,915	$ 12,653,016	$ 12,016,402
86.7500% Cubic yards	867,500												
Operating Expenses			$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,556
less Gypsum to On-site Landfill							$ (9,569,527)	$ (10,143,699)	$ (10,752,321)	$ (11,397,460)	$ (12,081,307)	$ (12,806,186)	$ (13,574,557)
Gypsum to Sterling	$ 10.50						$ 10,500,000	$ 11,130,000	$ 11,797,800	$ 12,505,668	$ 13,256,008	$ 14,051,369	$ 14,894,451
Net Operating			$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,933,781	$ 21,129,808	$ 22,397,596	$ 23,741,452	$ 25,165,940	$ 26,675,896	$ 28,276,450
Annual Depreciation							$ 3,690,414	$ 4,152,411	$ 4,170,184	$ 4,170,185	$ 4,170,184	$ 4,170,184	$ 4,170,184
Annual Property Tax Expense				$ 6,483	$ 69,718	$ 158,229	$ 266,366	$ 279,017	$ 286,798	$ 279,274	$ 271,517	$ 264,458	$ 274,825
Total OE			$ 84,800	$ 127,832	$ 198,348	$ 294,577	$ 23,890,561	$ 25,561,237	$ 26,854,579	$ 28,190,911	$ 29,607,640	$ 31,110,538	$ 32,721,458
Total E(m) Gypsum to Sterling		$ 460,435,348	$ 565,309	$ 3,680,888	$ 7,375,559	$ 13,948,646	$ 38,568,950	$ 40,714,230	$ 41,393,584	$ 42,074,725	$ 42,863,556	$ 43,763,554	$ 44,737,860
Total E(m) - Project 30 (See below)		$ 547,034,356	$ 565,309	$ 5,226,561	$ 11,770,141	$ 19,774,813	$ 44,706,579	$ 46,601,539	$ 46,978,148	$ 47,430,316	$ 48,060,812	$ 49,736,723	$ 52,503,105
Difference **PVRR**	**7.81%**	**$ (86,599,008)**	$ -	$ (1,545,673)	$ (4,394,582)	$ (5,826,167)	$ (6,137,629)	$ (5,887,309)	$ (5,584,564)	$ (5,355,590)	$ (5,197,256)	$ (5,973,170)	$ (7,765,245)
Date			12/31/2009	12/31/2010	12/31/2011	12/31/2012	12/31/2013	12/31/2014	12/31/2015	12/31/2016	12/31/2017	12/31/2018	12/31/2019

Revenue Requirments Summary
2009 Amended Plan
Project 30 Ghent Landfill Phase I
See Exhibit B

		2009	2010	2011	2012	2013	2014	2015	2016 Start Phase II	2017	2018	2019
Revenue Requirement									$ 500,000	$ 1,000,000	$ 8,000,000	$ 16,000,000
Eligible Plant		$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 203,078,976	$ 204,078,976	$ 212,078,976	$ 228,078,976
Less Gypsum Plant Requirements/Phase Delays		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Revised Eligible Plant		$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 203,078,976	$ 204,078,976	$ 212,078,976	$ 228,078,976
Less Accumulated Depreciation						$ (5,110,443)	$ (10,744,623)	$ (16,396,576)	$ (22,062,480)	$ (27,756,283)	$ (33,673,286)	$ (40,036,689)
Less Deferred Tax Balance						$ (732,114)	$ (3,915,341)	$ (6,717,677)	$ (9,166,960)	$ (11,288,480)	$ (13,186,459)	$ (15,678,367)
Environmental Compliance Rate Base		$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 185,291,361	$ 187,281,989	$ 179,464,723	$ 171,849,536	$ 165,034,213	$ 165,219,232	$ 172,363,920
Rate of Return		11.1%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
		$ 480,509	$ 5,098,729	$ 11,571,793	$ 19,480,236	$ 20,326,462	$ 20,544,834	$ 19,687,280	$ 18,851,894	$ 18,104,253	$ 18,124,550	$ 18,908,322
Difference	$ -											
Operating Expenses		$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,556
less Gypsum to On-site Landfill						$ -	$ -	$ -	$ -	$ -	$ -	$ -
Gypsum to Sterling						$ -	$ -	$ -	$ -	$ -	$ -	$ -
Net Operating		$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,556
Annual Depreciation						$ 5,110,443	$ 5,634,180	$ 5,651,953	$ 5,665,904	$ 5,693,803	$ 5,917,003	$ 6,363,403
Annual Property Tax Expense			$ 6,483	$ 69,718	$ 158,229	$ 266,366	$ 279,017	$ 286,798	$ 279,274	$ 271,517	$ 264,458	$ 274,825
Total OE		$ 84,800	$ 127,832	$ 198,348	$ 294,577	$ 24,380,117	$ 26,056,704	$ 27,290,868	$ 28,578,421	$ 29,956,559	$ 31,612,174	$ 33,594,783
Total E(m) Gypsum to On-site Landfill as Calculated	547,034,356	$ 565,309	$ 5,226,561	$ 11,770,141	$ 19,774,813	$ 44,706,579	$ 46,601,539	$ 46,978,148	$ 47,430,316	$ 48,060,812	$ 49,736,723	$ 52,503,105
Total E(m) Gypsum to On-site Landfill per KU		$ 565,309	$ 5,226,225	$ 11,769,378	$ 19,773,528	$ 44,705,239	$ 46,600,208	$ 46,976,843	$ 47,458,553	$ 48,044,547	$ 48,653,648	
Calculation Check Difference		$ -	$ 336	$ 763	$ 1,285	$ 1,340	$ 1,331	$ 1,305	$ (28,237)	$ 16,265	$ 1,083,075	
Site E/F Hauling cost of Ash 2.25 mile round trip						$ 2,822,723	$ 2,992,086	$ 3,171,612	$ 3,361,908	$ 3,563,623	$ 3,777,440	$ 4,004,087
Haul Road Maintenance						$ 53,529	$ 56,741	$ 60,145	$ 63,754	$ 67,579	$ 71,634	$ 75,932
Total						$ 2,876,252	$ 3,048,827	$ 3,231,757	$ 3,425,662	$ 3,631,202	$ 3,849,074	$ 4,080,018
Reduce by 50% for Site M		$ -	$ -	$ -	$ -	$ 1,438,126	$ 1,524,414	$ 1,615,878	$ 1,712,831	$ 1,815,601	$ 1,924,537	$ 2,040,009
Difference **PVRR**	**7.81%** **$ (21,865,903)**											

Revenue Requirments Summary
Gypsum Disposal at Sterling Materials

			2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
									Start Phase II				
Revenue Requirement									$ 500,000	$ 1,000,000	$ 8,000,000	$ 16,000,000	$ 11,000,000
Eligible Plant			$ 239,078,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 262,328,976	$ 302,328,976	$ 342,328,976	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
Less Gypsum Plant Requirements/Phase Delays			$ (89,610,000)	$ (93,110,000)	$ (93,110,000)	$ (93,110,000)	$ (112,860,000)	$ (152,860,000)	$ (192,860,000)	$ (209,031,024)	$ (201,031,024)	$ (185,031,024)	$ (174,031,024)
Revised Eligible Plant			$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,968,976	$ 150,968,976	$ 158,968,976	$ 174,968,976	$ 185,968,976
Less Accumulated Depreciation			$ (32,863,931)	$ (37,034,115)	$ (41,204,299)	$ (45,374,483)	$ (49,544,667)	$ (53,714,851)	$ (57,898,986)	$ (62,111,020)	$ (66,546,254)	$ (71,427,888)	$ (76,616,422)
Less Deferred Tax Balance			$ (12,869,515)	$ (14,502,559)	$ (16,135,603)	$ (17,768,648)	$ (19,401,692)	$ (21,034,736)	$ (22,673,243)	$ (24,322,675)	$ (26,059,513)	$ (27,971,161)	$ (30,002,991)
Environmental Compliance Rate Base			$ 103,735,530	$ 97,932,302	$ 92,129,073	$ 86,325,845	$ 80,522,617	$ 74,719,389	$ 69,396,748	$ 64,535,281	$ 66,363,209	$ 75,569,927	$ 79,349,563
Rate of Return			10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
Assumed Tons (1.155)	1,000,000		$ 11,379,788	$ 10,743,173	$ 10,106,559	$ 9,469,945	$ 8,833,331	$ 8,196,717	$ 7,612,823	$ 7,079,520	$ 7,280,044	$ 8,290,021	$ 8,704,647
86.7500% Cubic yards	867,500		$ 27,051	$ 661,940							$ (1,912,962)		
Operating Expenses			$ 28,601,000	$ 30,979,000	$ 32,837,740	$ 34,808,004	$ 36,896,485	$ 39,110,274	$ 41,456,890	$ 43,944,304	$ 44,668,000	$ 47,348,080	$ 50,188,965
less Gypsum to On-site Landfill			$ (14,389,030)	$ (15,252,372)	$ (16,167,515)	$ (17,137,565)	$ (18,165,819)	$ (19,255,768)	$ (20,411,115)	$ (21,635,781)	$ (22,933,928)	$ (24,309,964)	$ (25,768,562)
Gypsum to Sterling	$ 10.50		$ 15,788,118	$ 16,735,405	$ 17,739,529	$ 18,803,901	$ 19,932,135	$ 21,128,063	$ 22,395,747	$ 23,739,492	$ 25,163,861	$ 26,673,693	$ 28,274,114
Net Operating			$ 30,000,087	$ 32,462,033	$ 34,409,755	$ 36,474,340	$ 38,662,800	$ 40,982,568	$ 43,441,522	$ 46,048,014	$ 46,897,933	$ 49,711,809	$ 52,694,517
Annual Depreciation			$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,184,134	$ 4,212,034	$ 4,435,234	$ 4,881,634	$ 5,188,534
Annual Property Tax Expense			$ 295,558	$ 309,813	$ 314,348	$ 314,348	$ 314,348	$ 339,942	$ 391,776	$ 443,610	$ 466,510	$ 466,510	$ 466,510
Total OE			$ 34,465,830	$ 36,942,030	$ 38,894,287	$ 40,958,872	$ 43,147,333	$ 45,492,694	$ 48,017,432	$ 50,703,658	$ 51,799,676	$ 55,059,952	$ 58,349,561
Total E(m) Gypsum to Sterling		$ 460,435,348	$ 45,845,618	$ 47,685,203	$ 49,000,846	$ 50,428,818	$ 51,980,664	$ 53,689,411	$ 55,630,256	$ 57,783,179	$ 59,079,720	$ 63,349,973	$ 67,054,208
Total E(m) - Project 30 (See below)		$ 547,034,356	$ 54,663,605	$ 56,504,274	$ 57,334,363	$ 58,271,442	$ 61,960,218	$ 68,415,929	$ 74,860,342	$ 78,297,820	$ 77,511,114	$ 78,657,892	$ 79,965,474
Difference PVRR	**7.81%**	**$ (86,599,008)**	$ (8,817,987)	$ (8,819,070)	$ (8,333,517)	$ (7,842,625)	$ (9,979,554)	$ (14,726,518)	$ (19,230,086)	$ (20,514,642)	$ (18,431,393)	$ (15,307,918)	$ (12,911,267)
Date			12/31/2020	12/31/2021	12/31/2022	12/31/2023	12/31/2024	12/31/2025	12/31/2026	12/31/2027	12/31/2028	12/31/2029	12/31/2030

Revenue Requirments Summary
2009 Amended Plan
Project 30 Ghent Landfill Phase I
See Exhibit B

			2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
							Start Phase III						
Revenue Requirement			$ 11,000,000	$ 3,500,000			$ 19,750,000	$ 40,000,000	$ 40,000,000	$ 17,671,024			
Eligible Plant			$ 239,078,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 262,328,976	$ 302,328,976	$ 342,328,976	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
Less Gypsum Plant Requirements/Phase Delays			$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Revised Eligible Plant			$ 239,078,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 262,328,976	$ 302,328,976	$ 342,328,976	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
Less Accumulated Depreciation			$ (46,706,992)	$ (53,474,945)	$ (60,242,897)	$ (67,010,850)	$ (74,329,828)	$ (82,764,806)	$ (92,315,784)	$ (102,359,783)	$ (112,403,782)	$ (122,447,782)	$ (132,491,781)
Less Deferred Tax Balance			$ (18,290,458)	$ (20,940,788)	$ (23,591,119)	$ (26,241,449)	$ (29,107,561)	$ (32,410,698)	$ (36,150,861)	$ (40,084,091)	$ (44,017,321)	$ (47,950,551)	$ (51,883,781)
Environmental Compliance Rate Base			$ 174,081,526	$ 168,163,243	$ 158,744,960	$ 149,326,677	$ 158,891,587	$ 187,153,472	$ 213,862,331	$ 217,556,126	$ 203,578,896	$ 189,601,667	$ 175,624,438
Rate of Return			10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
			$ 19,096,743	$ 18,447,508	$ 17,414,322	$ 16,381,136	$ 17,430,407	$ 20,530,736	$ 23,460,698	$ 23,865,907	$ 22,332,605	$ 20,799,303	$ 19,266,001
Difference	$ -		$ 27,051	$ 661,940							$ (1,912,962)		
Operating Expenses			$ 28,601,000	$ 30,979,000	$ 32,837,740	$ 34,808,004	$ 36,896,485	$ 39,110,274	$ 41,456,890	$ 43,944,304	$ 44,668,000	$ 47,348,080	$ 50,188,965
less Gypsum to On-site Landfill			$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Gypsum to Sterling			$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Net Operating			$ 28,601,000	$ 30,979,000	$ 32,837,740	$ 34,808,004	$ 36,896,485	$ 39,110,274	$ 41,456,890	$ 43,944,304	$ 44,668,000	$ 47,348,080	$ 50,188,965
Annual Depreciation			$ 6,670,303	$ 6,767,953	$ 6,767,953	$ 6,767,953	$ 7,318,978	$ 8,434,978	$ 9,550,978	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999
Annual Property Tax Expense			$ 295,558	$ 309,813	$ 314,348	$ 314,348	$ 314,348	$ 339,942	$ 391,776	$ 443,610	$ 466,510	$ 466,510	$ 466,510
Total OE			$ 35,566,861	$ 38,056,766	$ 39,920,041	$ 41,890,306	$ 44,529,811	$ 47,885,193	$ 51,399,644	$ 54,431,913	$ 55,178,509	$ 57,858,589	$ 60,699,474
Total E(m) Gypsum to On-site Landfill as Calculated		547,034,356	$ 54,663,605	$ 56,504,274	$ 57,334,363	$ 58,271,442	$ 61,960,218	$ 68,415,929	$ 74,860,342	$ 78,297,820	$ 77,511,114	$ 78,657,892	$ 79,965,474
Total E(m) Gypsum to On-site Landfill per KU													
Calculation Check Difference													
Site E/F Hauling cost of Ash 2.25 mile round trip			$ 4,244,332	$ 4,498,992	$ 4,768,931	$ 5,055,067	$ 5,358,371	$ 5,679,873	$ 6,020,666	$ 6,381,906	$ 6,764,820	$ 7,170,709	$ 7,600,952
Haul Road Maintenance			$ 80,488	$ 85,317	$ 90,436	$ 95,862	$ 101,614	$ 107,711	$ 114,174	$ 121,024	$ 128,285	$ 135,982	$ 144,141
Total			$ 4,324,820	$ 4,584,309	$ 4,859,367	$ 5,150,929	$ 5,459,985	$ 5,787,584	$ 6,134,839	$ 6,502,930	$ 6,893,105	$ 7,306,692	$ 7,745,093
Reduce by 50% for Site M			$ 2,162,410	$ 2,292,154	$ 2,429,684	$ 2,575,465	$ 2,729,993	$ 2,893,792	$ 3,067,420	$ 3,251,465	$ 3,446,553	$ 3,653,346	$ 3,872,547
Difference PVRR	**7.81%**	**$ (21,865,903)**											

Revenue Requirments Summary
Gypsum Disposal at Sterling Materials

			2031	2032	2033	2034	2035	2036	2037	
Revenue Requirement			$ 3,500,000							
Eligible Plant			$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	
Less Gypsum Plant Requirements/Phase Delays			$ (170,531,024)	$ (170,531,024)	$ (170,531,024)	$ (170,531,024)	$ (170,531,024)	$ (170,531,024)	$ (170,531,024)	
Revised Eligible Plant			$ 189,468,976	$ 189,468,976	$ 189,468,976	$ 189,468,976	$ 189,468,976	$ 189,468,976	$ 189,468,976	
Less Accumulated Depreciation			$ (81,902,606)	$ (87,188,790)	$ (92,474,974)	$ (97,761,158)	$ (103,047,342)	$ (108,333,526)	$ (113,619,710)	
Less Deferred Tax Balance			$ (32,073,060)	$ (34,143,130)	$ (36,213,200)	$ (38,283,269)	$ (40,353,339)	$ (42,423,409)	$ (44,493,479)	
Environmental Compliance Rate Base			$ 75,493,310	$ 68,137,056	$ 60,780,802	$ 53,424,548	$ 46,068,295	$ 38,712,041	$ 31,355,787	
Rate of Return			10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	
Assumed Tons (1.155)	1,000,000		$ 8,281,616	$ 7,474,635	$ 6,667,654	$ 5,860,673	$ 5,053,692	$ 4,246,711	$ 3,439,730	$ 259,765,660
86.7500% Cubic yards	867,500									
Operating Expenses			$ 53,200,303	$ 56,392,321	$ 59,775,860	$ 63,362,412	$ 67,164,156	$ 71,194,006	$ 75,465,646	
less Gypsum to On-site Landfill			$ (27,314,676)	$ (28,953,556)	$ (30,690,769)	$ (32,532,216)	$ (34,484,149)	$ (36,553,198)	$ (38,746,389)	
Gypsum to Sterling	$ 10.50		$ 29,970,561	$ 31,768,795	$ 33,674,922	$ 35,695,418	$ 37,837,143	$ 40,107,371	$ 42,513,814	
Net Operating			$ 55,856,188	$ 59,207,559	$ 62,760,013	$ 66,525,614	$ 70,517,151	$ 74,748,180	$ 79,233,071	
Annual Depreciation			$ 5,286,184	$ 5,286,184	$ 5,286,184	$ 5,286,184	$ 5,286,184	$ 5,286,184	$ 5,286,184	
Annual Property Tax Expense			$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	
Total OE			$ 61,608,882	$ 64,960,253	$ 68,512,707	$ 72,278,307	$ 76,269,844	$ 80,500,873	$ 84,985,764	
Total E(m) Gypsum to Sterling		$ 460,435,348	$ 69,890,498	$ 72,434,888	$ 75,180,361	$ 78,138,980	$ 81,323,536	$ 84,747,584	$ 88,425,494	$ 1,471,356,097
Total E(m) - Project 30 (See below)		$ 547,034,356	$ 81,443,510	$ 83,102,226	$ 84,952,464	$ 87,005,713	$ 89,274,156	$ 91,770,703	$ 94,509,041	$ 1,731,854,332
Difference PVRR	7.81%	**$ (86,599,008)**	$ (11,553,012)	$ (10,667,338)	$ (9,772,103)	$ (8,866,733)	$ (7,950,620)	$ (7,023,119)	$ (6,083,547)	**$ (260,498,235)**
Date			12/31/2031	12/31/2032	12/31/2033	12/31/2034	12/31/2035	12/31/2036	12/31/2037	

Revenue Requirments Summary
2009 Amended Plan
Project 30 Ghent Landfill Phase I
See Exhibit B

			2031	2032	2033	2034	2035	2036	2037	
Revenue Requirement										$ 117,421,024
Eligible Plant			$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	
Less Gypsum Plant Requirements/Phase Delays			$ -	$ -	$ -	$ -	$ -	$ -	$ -	
Revised Eligible Plant			$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	
Less Accumulated Depreciation			$ (142,535,780)	$ (152,579,779)	$ (162,623,779)	$ (172,667,778)	$ (182,711,777)	$ (192,755,777)	$ (202,799,776)	
Less Deferred Tax Balance			$ (55,817,012)	$ (59,750,242)	$ (63,683,472)	$ (67,616,702)	$ (71,549,932)	$ (75,483,162)	$ (79,416,392)	
Environmental Compliance Rate Base			$ 161,647,208	$ 147,669,979	$ 133,692,750	$ 119,715,520	$ 105,738,291	$ 91,761,061	$ 77,783,832	
Rate of Return			10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	
			$ 17,732,699	$ 16,199,397	$ 14,666,095	$ 13,132,793	$ 11,599,490	$ 10,066,188	$ 8,532,886	$ 482,133,777
Difference	$ -									
Operating Expenses			$ 53,200,303	$ 56,392,321	$ 59,775,860	$ 63,362,412	$ 67,164,156	$ 71,194,006	$ 75,465,646	
less Gypsum to On-site Landfill			$ -	$ -	$ -	$ -	$ -	$ -	$ -	
Gypsum to Sterling			$ -	$ -	$ -	$ -	$ -	$ -	$ -	
Net Operating			$ 53,200,303	$ 56,392,321	$ 59,775,860	$ 63,362,412	$ 67,164,156	$ 71,194,006	$ 75,465,646	
Annual Depreciation			$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	
Annual Property Tax Expense			$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	
Total OE			$ 63,710,812	$ 66,902,830	$ 70,286,369	$ 73,872,921	$ 77,674,665	$ 81,704,515	$ 85,976,155	$ 1,249,720,555
Total E(m) Gypsum to On-site Landfill as Calculated		547,034,356	$ 81,443,510	$ 83,102,226	$ 84,952,464	$ 87,005,713	$ 89,274,156	$ 91,770,703	$ 94,509,041	$ 1,731,854,332
Total E(m) Gypsum to On-site Landfill per KU										
Calculation Check Difference										
Site E/F Hauling cost of Ash 2.25 mile round trip			$ 8,057,009	$ 8,540,429	$ 9,052,855	$ 9,596,026	$ 10,171,788	$ 10,782,095	$ 11,429,021	
Haul Road Maintenance			$ 152,790	$ 161,957	$ 171,675	$ 181,975	$ 192,894	$ 204,467	$ 216,735	
Total			$ 8,209,799	$ 8,702,387	$ 9,224,530	$ 9,778,002	$ 10,364,682	$ 10,986,563	$ 11,645,756	
Reduce by 50% for Site M			$ 4,104,899	$ 4,351,193	$ 4,612,265	$ 4,889,001	$ 5,182,341	$ 5,493,281	$ 5,822,878	
Difference PVRR	7.81%	**$ (21,865,903)**								

Revenue Requirments Summary
Gypsum Disposal at Sterling Materials

			2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Revenue Requirement													
Eligible Plant			$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 203,078,976	$ 204,078,976	$ 212,078,976	$ 228,078,976
Less Gypsum Plant Requirements/Phase Delays			$ -	$ (14,090,000)	$ (40,060,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,610,000)	$ (53,610,000)	$ (54,610,000)	$ (62,610,000)	$ (78,610,000)
Revised Eligible Plant			$ 4,321,671	$ 32,388,846	$ 65,425,803	$ 124,467,356	$ 138,023,918	$ 148,831,953	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976
Less Accumulated Depreciation							$ (3,690,414)	$ (7,842,826)	$ (12,013,010)	$ (16,183,194)	$ (20,353,378)	$ (24,523,563)	$ (28,693,747)
Less Deferred Tax Balance							$ (528,683)	$ (2,857,926)	$ (4,921,730)	$ (6,724,117)	$ (8,277,719)	$ (9,603,427)	$ (11,236,471)
Environmental Compliance Rate Base			$ 4,321,671	$ 32,388,846	$ 65,425,803	$ 124,467,356	$ 133,804,821	$ 138,131,202	$ 132,534,236	$ 126,561,665	$ 120,837,879	$ 115,341,986	$ 109,538,758
Rate of Return			11.1%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
Assumed Tons (1.155)	1,000,000		$ 480,509	$ 3,553,056	$ 7,177,211	$ 13,654,069	$ 14,678,389	$ 15,152,993	$ 14,539,006	$ 13,883,815	$ 13,255,915	$ 12,658,016	$ 12,016,402
86.7500% Cubic yards	867,500												
Operating Expenses			$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,556
less Gypsum to On-site Landfill							$ (9,569,527)	$ (10,143,699)	$ (10,752,321)	$ (11,397,460)	$ (12,081,307)	$ (12,806,186)	$ (13,574,557)
Gypsum to Sterling	$ 9.00						$ 9,000,000	$ 9,540,000	$ 10,112,400	$ 10,719,144	$ 11,362,293	$ 12,044,030	$ 12,766,672
Net Operating			$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 18,433,781	$ 19,539,808	$ 20,712,196	$ 21,954,928	$ 23,272,224	$ 24,668,557	$ 26,148,671
Annual Depreciation							$ 3,690,414	$ 4,152,411	$ 4,170,184	$ 4,170,185	$ 4,170,184	$ 4,170,184	$ 4,170,184
Annual Property Tax Expense				$ 6,483	$ 69,718	$ 158,229	$ 266,366	$ 279,017	$ 286,798	$ 279,274	$ 271,517	$ 264,458	$ 274,825
Total OE			$ 84,800	$ 127,832	$ 198,348	$ 294,577	$ 22,390,561	$ 23,971,237	$ 25,169,179	$ 26,404,387	$ 27,713,925	$ 29,103,199	$ 30,593,680
Total E(m) Gypsum to Sterling		$ 437,628,685	$ 565,309	$ 3,680,888	$ 7,375,559	$ 13,948,646	$ 37,068,950	$ 39,124,230	$ 39,708,184	$ 40,288,201	$ 40,969,840	$ 41,756,215	$ 42,610,081
Total E(m) - Project 30 (See below)		$ 547,034,356	$ 565,309	$ 5,226,561	$ 11,770,141	$ 19,774,813	$ 44,706,579	$ 46,601,539	$ 46,978,148	$ 47,430,316	$ 48,060,812	$ 49,736,723	$ 52,503,105
Difference **PVRR**	**7.81%**	**$ (109,405,671)**	$ -	$ (1,545,673)	$ (4,394,582)	$ (5,826,167)	$ (7,637,629)	$ (7,477,309)	$ (7,269,964)	$ (7,142,114)	$ (7,090,972)	$ (7,980,508)	$ (9,893,024)
Date			12/31/2009	12/31/2010	12/31/2011	12/31/2012	12/31/2013	12/31/2014	12/31/2015	12/31/2016	12/31/2017	12/31/2018	12/31/2019

Revenue Requirments Summary
2009 Amended Plan
Project 30 Ghent Landfill Phase I
See Exhibit B

		2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
									Start Phase II			
Revenue Requirement									$ 500,000	$ 1,000,000	$ 8,000,000	$ 16,000,000
Eligible Plant		$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 203,078,976	$ 204,078,976	$ 212,078,976	$ 228,078,976
Less Gypsum Plant Requirements/Phase Delays		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Revised Eligible Plant		$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 203,078,976	$ 204,078,976	$ 212,078,976	$ 228,078,976
Less Accumulated Depreciation						$ (5,110,443)	$ (10,744,623)	$ (16,396,576)	$ (22,062,480)	$ (27,756,283)	$ (33,673,286)	$ (40,036,689)
Less Deferred Tax Balance						$ (732,114)	$ (3,915,341)	$ (6,717,677)	$ (9,166,960)	$ (11,288,480)	$ (13,186,459)	$ (15,678,367)
Environmental Compliance Rate Base		$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 185,291,361	$ 187,281,989	$ 179,464,723	$ 171,849,536	$ 165,034,213	$ 165,219,232	$ 172,363,920
Rate of Return		11.1%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
		$ 480,509	$ 5,098,729	$ 11,571,793	$ 19,480,236	$ 20,326,462	$ 20,544,834	$ 19,687,280	$ 18,851,894	$ 18,104,253	$ 18,124,550	$ 18,908,322
Difference	$ -											
Operating Expenses		$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,556
less Gypsum to On-site Landfill						$ -	$ -	$ -	$ -	$ -	$ -	$ -
Gypsum to Sterling						$ -	$ -	$ -	$ -	$ -	$ -	$ -
Net Operating		$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,556
Annual Depreciation						$ 5,110,443	$ 5,634,180	$ 5,651,953	$ 5,665,904	$ 5,693,803	$ 5,917,003	$ 6,363,403
Annual Property Tax Expense			$ 6,483	$ 69,718	$ 158,229	$ 266,366	$ 279,017	$ 286,798	$ 279,274	$ 271,517	$ 264,458	$ 274,825
Total OE		$ 84,800	$ 127,832	$ 198,348	$ 294,577	$ 24,380,117	$ 26,056,704	$ 27,290,868	$ 28,578,421	$ 29,956,559	$ 31,612,174	$ 33,594,783
Total E(m) Gypsum to On-site Landfill as Calculated	547,034,356	$ 565,309	$ 5,226,561	$ 11,770,141	$ 19,774,813	$ 44,706,579	$ 46,601,539	$ 46,978,148	$ 47,430,316	$ 48,060,812	$ 49,736,723	$ 52,503,105
Total E(m) Gypsum to On-site Landfill per KU		$ 565,309	$ 5,226,225	$ 11,769,378	$ 19,773,528	$ 44,705,239	$ 46,600,208	$ 46,976,843	$ 47,458,553	$ 48,044,547	$ 48,653,648	
Calculation Check Difference		$ -	$ 336	$ 763	$ 1,285	$ 1,340	$ 1,331	$ 1,305	$ (28,237)	$ 16,265	$ 1,083,075	
Site E/F Hauling cost of Ash 2.25 mile round trip						$ 2,822,723	$ 2,992,086	$ 3,171,612	$ 3,361,908	$ 3,563,623	$ 3,777,440	$ 4,004,087
Haul Road Maintenance						$ 53,529	$ 56,741	$ 60,145	$ 63,754	$ 67,579	$ 71,634	$ 75,932
Total						$ 2,876,252	$ 3,048,827	$ 3,231,757	$ 3,425,662	$ 3,631,202	$ 3,849,074	$ 4,080,018
Reduce by 50% for Site M		$ -	$ -	$ -	$ -	$ 1,438,126	$ 1,524,414	$ 1,615,878	$ 1,712,831	$ 1,815,601	$ 1,924,537	$ 2,040,009
Difference **PVRR**	**7.81%**	**$ (21,865,903)**										

Revenue Requirments Summary
Gypsum Disposal at Sterling Materials

			2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
									Start Phase II				
Revenue Requirement									$ 500,000	$ 1,000,000	$ 8,000,000	$ 16,000,000	$ 11,000,000
Eligible Plant			$ 239,078,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 262,328,976	$ 302,328,976	$ 342,328,976	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
Less Gypsum Plant Requirements/Phase Delays			$ (89,610,000)	$ (93,110,000)	$ (93,110,000)	$ (93,110,000)	$ (112,860,000)	$ (152,860,000)	$ (192,360,000)	$ (209,031,024)	$ (201,031,024)	$ (185,031,024)	$ (174,031,024)
Revised Eligible Plant			$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,968,976	$ 150,968,976	$ 158,968,976	$ 174,968,976	$ 185,968,976
Less Accumulated Depreciation			$ (32,863,931)	$ (37,034,115)	$ (41,204,299)	$ (45,374,483)	$ (49,544,667)	$ (53,714,851)	$ (57,898,986)	$ (62,111,020)	$ (65,546,254)	$ (71,427,888)	$ (76,616,422)
Less Deferred Tax Balance			$ (12,869,515)	$ (14,502,559)	$ (16,135,603)	$ (17,768,648)	$ (19,401,692)	$ (21,034,736)	$ (22,673,243)	$ (24,322,675)	$ (26,059,513)	$ (27,971,161)	$ (30,002,991)
Environmental Compliance Rate Base			$ 103,735,530	$ 97,932,302	$ 92,129,073	$ 86,325,845	$ 80,522,617	$ 74,719,389	$ 69,396,748	$ 64,535,281	$ 66,363,209	$ 75,569,927	$ 79,349,563
Rate of Return			10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
Assumed Tons (1.155)	1,000,000		$ 11,379,788	$ 10,743,173	$ 10,106,559	$ 9,469,945	$ 8,833,331	$ 8,196,717	$ 7,612,823	$ 7,079,520	$ 7,280,044	$ 8,290,021	$ 8,704,647
86.7500% Cubic yards	867,500		$ 27,051	$ 661,940							$ (1,912,962)		
Operating Expenses			$ 28,601,000	$ 30,979,000	$ 32,837,740	$ 34,808,004	$ 36,896,485	$ 39,110,274	$ 41,456,890	$ 43,944,304	$ 44,668,000	$ 47,348,080	$ 50,188,965
less Gypsum to On-site Landfill			$ (14,389,030)	$ (15,252,372)	$ (16,167,515)	$ (17,137,565)	$ (18,165,819)	$ (19,255,768)	$ (20,411,115)	$ (21,635,781)	$ (22,933,928)	$ (24,309,964)	$ (25,768,562)
Gypsum to Sterling	$ 9.00		$ 13,532,672	$ 14,344,633	$ 15,205,311	$ 16,117,629	$ 17,084,687	$ 18,109,768	$ 19,196,354	$ 20,348,136	$ 21,569,024	$ 22,863,165	$ 24,234,955
Net Operating			$ 27,744,642	$ 30,071,260	$ 31,875,536	$ 33,788,068	$ 35,815,352	$ 37,964,274	$ 40,242,130	$ 42,656,658	$ 43,303,095	$ 45,901,281	$ 48,655,358
Annual Depreciation			$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,184,134	$ 4,212,034	$ 4,435,234	$ 4,881,634	$ 5,188,534
Annual Property Tax Expense			$ 295,558	$ 309,813	$ 314,348	$ 314,348	$ 314,348	$ 339,942	$ 391,776	$ 443,610	$ 466,510	$ 466,510	$ 466,510
Total OE			$ 32,210,385	$ 34,551,257	$ 36,360,069	$ 38,272,601	$ 40,299,885	$ 42,474,399	$ 44,818,040	$ 47,312,302	$ 48,204,839	$ 51,249,425	$ 54,310,402
Total E(m) Gypsum to Sterling		$ 437,628,685	$ 43,590,172	$ 45,294,431	$ 46,466,628	$ 47,742,546	$ 49,133,216	$ 50,671,116	$ 52,430,863	$ 54,391,823	$ 55,484,883	$ 59,539,446	$ 63,015,049
Total E(m) - Project 30 (See below)		$ 547,034,356	$ 54,663,605	$ 56,504,274	$ 57,334,363	$ 58,271,442	$ 61,960,218	$ 68,415,929	$ 74,860,342	$ 78,297,820	$ 77,511,114	$ 78,657,892	$ 79,965,474
Difference	PVRR 7.81%	$ (109,405,671)	$ (11,073,433)	$ (11,209,843)	$ (10,867,735)	$ (10,528,896)	$ (12,827,002)	$ (17,744,813)	$ (22,429,478)	$ (23,905,998)	$ (22,026,231)	$ (19,118,446)	$ (16,950,426)
Date			12/31/2020	12/31/2021	12/31/2022	12/31/2023	12/31/2024	12/31/2025	12/31/2026	12/31/2027	12/31/2028	12/31/2029	12/31/2030

Revenue Requirments Summary
2009 Amended Plan
Project 30 Ghent Landfill Phase I
See Exhibit B

		2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
						Start Phase III						
Revenue Requirement		$ 11,000,000	$ 3,500,000			$ 19,750,000	$ 40,000,000	$ 40,000,000	$ 17,671,024			
Eligible Plant		$ 239,078,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 262,328,976	$ 302,328,976	$ 342,328,976	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
Less Gypsum Plant Requirements/Phase Delays		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Revised Eligible Plant		$ 239,078,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 262,328,976	$ 302,328,976	$ 342,328,976	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
Less Accumulated Depreciation		$ (46,706,992)	$ (53,474,945)	$ (60,242,897)	$ (67,010,850)	$ (74,329,828)	$ (82,764,806)	$ (92,315,784)	$ (102,359,783)	$ (112,403,782)	$ (122,447,782)	$ (132,491,781)
Less Deferred Tax Balance		$ (18,290,458)	$ (20,940,788)	$ (23,591,119)	$ (26,241,449)	$ (29,107,561)	$ (32,410,698)	$ (36,150,861)	$ (40,084,091)	$ (44,017,321)	$ (47,950,551)	$ (51,883,781)
Environmental Compliance Rate Base		$ 174,081,526	$ 168,163,243	$ 158,744,960	$ 149,326,677	$ 158,891,587	$ 187,153,472	$ 213,862,331	$ 217,556,126	$ 203,578,896	$ 189,601,667	$ 175,624,438
Rate of Return		10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
		$ 19,096,743	$ 18,447,508	$ 17,414,322	$ 16,381,136	$ 17,430,407	$ 20,530,736	$ 23,460,698	$ 23,865,907	$ 22,332,605	$ 20,799,303	$ 19,266,001
Difference	$ -	$ 27,051	$ 661,940							$ (1,912,962)		
Operating Expenses		$ 28,601,000	$ 30,979,000	$ 32,837,740	$ 34,808,004	$ 36,896,485	$ 39,110,274	$ 41,456,890	$ 43,944,304	$ 44,668,000	$ 47,348,080	$ 50,188,965
less Gypsum to On-site Landfill		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Gypsum to Sterling		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Net Operating		$ 28,601,000	$ 30,979,000	$ 32,837,740	$ 34,808,004	$ 36,896,485	$ 39,110,274	$ 41,456,890	$ 43,944,304	$ 44,668,000	$ 47,348,080	$ 50,188,965
Annual Depreciation		$ 6,670,303	$ 6,767,953	$ 6,767,953	$ 6,767,953	$ 7,318,978	$ 8,434,978	$ 9,550,978	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999
Annual Property Tax Expense		$ 295,558	$ 309,813	$ 314,348	$ 314,348	$ 314,348	$ 339,942	$ 391,776	$ 443,610	$ 466,510	$ 466,510	$ 466,510
Total OE		$ 35,566,861	$ 38,056,766	$ 39,920,041	$ 41,890,306	$ 44,529,811	$ 47,885,193	$ 51,399,644	$ 54,431,913	$ 55,178,509	$ 57,858,589	$ 60,699,474
Total E(m) Gypsum to On-site Landfill as Calculated	547,034,356	$ 54,663,605	$ 56,504,274	$ 57,334,363	$ 58,271,442	$ 61,960,218	$ 68,415,929	$ 74,860,342	$ 78,297,820	$ 77,511,114	$ 78,657,892	$ 79,965,474
Total E(m) Gypsum to On-site Landfill per KU												
Calculation Check Difference												
Site E/F Hauling cost of Ash 2.25 mile round trip		$ 4,244,332	$ 4,498,992	$ 4,768,931	$ 5,055,067	$ 5,358,371	$ 5,679,873	$ 6,020,666	$ 6,381,906	$ 6,764,820	$ 7,170,709	$ 7,600,952
Haul Road Maintenance		$ 80,488	$ 85,317	$ 90,436	$ 95,862	$ 101,614	$ 107,711	$ 114,174	$ 121,024	$ 128,285	$ 135,982	$ 144,141
Total		$ 4,324,820	$ 4,584,309	$ 4,859,367	$ 5,150,929	$ 5,459,985	$ 5,787,584	$ 6,134,839	$ 6,502,930	$ 6,893,105	$ 7,306,692	$ 7,745,093
Reduce by 50% for Site M		$ 2,162,410	$ 2,292,154	$ 2,429,684	$ 2,575,465	$ 2,729,993	$ 2,893,792	$ 3,067,420	$ 3,251,465	$ 3,446,553	$ 3,653,346	$ 3,872,547
Difference	PVRR 7.81% $ (21,865,903)											

Revenue Requirments Summary
Gypsum Disposal at Sterling Materials

			2031	2032	2033	2034	2035	2036	2037	
Revenue Requirement			$ 3,500,000							
Eligible Plant			$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	
Less Gypsum Plant Requirements/Phase Delays			$ (170,531,024)	$ (170,531,024)	$ (170,531,024)	$ (170,531,024)	$ (170,531,024)	$ (170,531,024)	$ (170,531,024)	
Revised Eligible Plant			$ 189,468,976	$ 189,468,976	$ 189,468,976	$ 189,468,976	$ 189,468,976	$ 189,468,976	$ 189,468,976	
Less Accumulated Depreciation			$ (81,902,606)	$ (87,188,790)	$ (92,474,974)	$ (97,761,158)	$ (103,047,342)	$ (108,333,526)	$ (113,619,710)	
Less Deferred Tax Balance			$ (32,073,060)	$ (34,143,130)	$ (36,213,200)	$ (38,283,269)	$ (40,353,339)	$ (42,423,409)	$ (44,493,479)	
Environmental Compliance Rate Base			$ 75,493,310	$ 68,137,056	$ 60,780,802	$ 53,424,548	$ 46,068,295	$ 38,712,041	$ 31,355,787	
Rate of Return			10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	
Assumed Tons (1.155)	1,000,000		$ 8,281,616	$ 7,474,635	$ 6,667,654	$ 5,860,673	$ 5,053,692	$ 4,246,711	$ 3,439,730	$ 259,765,660
86.7500% Cubic yards	867,500									
Operating Expenses			$ 53,200,303	$ 56,392,321	$ 59,775,860	$ 63,362,412	$ 67,164,156	$ 71,194,006	$ 75,465,646	
less Gypsum to On-site Landfill			$ (27,314,676)	$ (28,953,556)	$ (30,690,769)	$ (32,532,216)	$ (34,484,149)	$ (36,553,198)	$ (38,746,389)	
Gypsum to Sterling	$ 9.00		$ 25,689,052	$ 27,230,396	$ 28,864,219	$ 30,596,072	$ 32,431,837	$ 34,377,747	$ 36,440,412	
Net Operating			$ 51,574,679	$ 54,669,160	$ 57,949,310	$ 61,426,268	$ 65,111,845	$ 69,018,555	$ 73,159,669	
Annual Depreciation			$ 5,286,184	$ 5,286,184	$ 5,286,184	$ 5,286,184	$ 5,286,184	$ 5,286,184	$ 5,286,184	
Annual Property Tax Expense			$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	
Total OE			$ 57,327,373	$ 60,421,854	$ 63,702,004	$ 67,178,962	$ 70,864,538	$ 74,771,249	$ 78,912,362	
Total E(m) Gypsum to Sterling		$ 437,628,685	$ 65,608,989	$ 67,896,489	$ 70,369,657	$ 73,039,635	$ 75,918,230	$ 79,017,960	$ 82,352,092	$ 1,389,059,329
Total E(m) - Project 30 (See below)		$ 547,034,356	$ 81,443,510	$ 83,102,226	$ 84,952,464	$ 87,005,713	$ 89,274,156	$ 91,770,703	$ 94,509,041	$ 1,731,854,332
Difference	PVRR	7.81% $ (109,405,671)	$ (15,834,521)	$ (15,205,737)	$ (14,582,806)	$ (13,966,078)	$ (13,355,926)	$ (12,752,743)	$ (12,156,949)	$ (342,795,003)
Date			12/31/2031	12/31/2032	12/31/2033	12/31/2034	12/31/2035	12/31/2036	12/31/2037	

Revenue Requirments Summary
2009 Amended Plan
Project 30 Ghent Landfill Phase I
See Exhibit B

		2031	2032	2033	2034	2035	2036	2037	
Revenue Requirement									$ 117,421,024
Eligible Plant		$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	
Less Gypsum Plant Requirements/Phase Delays		$ -	$ -	$ -	$ -	$ -	$ -	$ -	
Revised Eligible Plant		$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	
Less Accumulated Depreciation		$ (142,535,780)	$ (152,579,779)	$ (162,623,779)	$ (172,667,778)	$ (182,711,777)	$ (192,755,777)	$ (202,799,776)	
Less Deferred Tax Balance		$ (55,817,012)	$ (59,750,242)	$ (63,683,472)	$ (67,616,702)	$ (71,549,932)	$ (75,483,162)	$ (79,416,392)	
Environmental Compliance Rate Base		$ 161,647,208	$ 147,669,979	$ 133,692,750	$ 119,715,520	$ 105,738,291	$ 91,761,061	$ 77,783,832	
Rate of Return		10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	
		$ 17,732,699	$ 16,199,397	$ 14,666,095	$ 13,132,793	$ 11,599,490	$ 10,066,188	$ 8,532,886	$ 482,133,777
Difference	$ -								
Operating Expenses		$ 53,200,303	$ 56,392,321	$ 59,775,860	$ 63,362,412	$ 67,164,156	$ 71,194,006	$ 75,465,646	
less Gypsum to On-site Landfill		$ -	$ -	$ -	$ -	$ -	$ -	$ -	
Gypsum to Sterling		$ -	$ -	$ -	$ -	$ -	$ -	$ -	
Net Operating		$ 53,200,303	$ 56,392,321	$ 59,775,860	$ 63,362,412	$ 67,164,156	$ 71,194,006	$ 75,465,646	
Annual Depreciation		$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	
Annual Property Tax Expense		$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	
Total OE		$ 63,710,812	$ 66,902,830	$ 70,286,369	$ 73,872,921	$ 77,674,665	$ 81,704,515	$ 85,976,155	$ 1,249,720,555
Total E(m) Gypsum to On-site Landfill as Calculated	547,034,356	$ 81,443,510	$ 83,102,226	$ 84,952,464	$ 87,005,713	$ 89,274,156	$ 91,770,703	$ 94,509,041	$ 1,731,854,332
Total E(m) Gypsum to On-site Landfill per KU									
Calculation Check Difference									
Site E/F Hauling cost of Ash 2.25 mile round trip		$ 8,057,009	$ 8,540,429	$ 9,052,855	$ 9,596,026	$ 10,171,788	$ 10,782,095	$ 11,429,021	
Haul Road Maintenance		$ 152,790	$ 161,957	$ 171,675	$ 181,975	$ 192,894	$ 204,467	$ 216,735	
Total		$ 8,209,799	$ 8,702,387	$ 9,224,530	$ 9,778,002	$ 10,364,682	$ 10,986,563	$ 11,645,756	
Reduce by 50% for Site M		$ 4,104,899	$ 4,351,193	$ 4,612,265	$ 4,889,001	$ 5,182,341	$ 5,493,781	$ 5,822,878	
Difference	PVRR 7.81% $ (21,865,903)								

Annual Revenue Requirements - Ghent Landfill - KU Project 30										
	Capital					O&M				Total
	Phase 1	Phase 2	Phase 3	Final Cap	Total	Non-Power	Power	Beneficial Reuse	Total O&M	
12/31/2009	480,509	-	-		480,509		84,800		84,800	565,309
12/31/2010	5,098,729	-	-		5,098,729		127,832		127,832	5,226,561
12/31/2011	11,571,793	-	-		11,571,793		198,348		198,348	11,770,141
12/31/2012	19,480,236	-	-		19,480,236		294,577		294,577	19,774,813
12/31/2013	20,326,462	-	-		20,326,462		24,380,117		24,380,117	44,706,579
12/31/2014	20,544,834	-	-		20,544,834		26,056,704		26,056,704	46,601,539
12/31/2015	19,687,280	-	-		19,687,280		27,290,868		27,290,868	46,978,148
12/31/2016	18,799,210	52,684	-		18,851,894		28,578,421		28,578,421	47,430,316
12/31/2017	17,948,314	155,939	-		18,104,253		29,956,559		29,956,559	48,060,812
12/31/2018	17,131,380	993,170	-		18,124,550		31,612,174		31,612,174	49,736,723
12/31/2019	16,268,561	2,639,761	-		18,908,322		33,594,783		33,594,783	52,503,105
12/31/2020	15,405,743	3,691,001	-		19,096,743		35,566,861		35,566,861	54,663,605
12/31/2021	14,542,924	3,904,584	-		18,447,508		38,056,766		38,056,766	56,504,274
12/31/2022	13,680,105	3,734,217	-		17,414,322		39,920,041		39,920,041	57,334,363
12/31/2023	12,817,286	3,563,850	-		16,381,136		41,890,306		41,890,306	58,271,442
12/31/2024	11,954,467	3,393,483	2,082,456		17,430,407		44,529,811		44,529,811	61,960,218
12/31/2025	11,091,649	3,223,116	6,215,971		20,530,736		47,885,193		47,885,193	68,415,929
12/31/2026	10,228,830	3,052,749	10,179,118		23,460,698		51,399,644		51,399,644	74,860,342
12/31/2027	9,366,011	2,882,383	11,617,513		23,865,907		54,431,913		54,431,913	78,297,820
12/31/2028	8,503,192	2,712,016	11,117,397		22,332,605		55,178,509		55,178,509	77,511,114
12/31/2029	7,640,374	2,541,649	10,617,281		20,799,303		57,858,589		57,858,589	78,657,892
12/31/2030	6,777,555	2,371,282	10,117,164		19,266,001		60,699,474		60,699,474	79,965,474
12/31/2031	5,914,736	2,200,915	9,617,048		17,732,699		63,710,812		63,710,812	81,443,510
12/31/2032	5,051,917	2,030,548	9,116,931		16,199,397		66,902,830		66,902,830	83,102,226
12/31/2033	4,189,098	1,860,181	8,616,815		14,666,095		70,286,369		70,286,369	84,952,464
12/31/2034	3,326,280	1,689,814	8,116,699		13,132,793		73,872,921		73,872,921	87,005,713
12/31/2035	2,463,461	1,519,447	7,616,582		11,599,490		77,674,665		77,674,665	89,274,156
12/31/2036	1,600,642	1,349,080	7,116,466		10,066,188		81,704,515		81,704,515	91,770,703
12/31/2037	737,823	1,178,714	6,616,349		8,532,886		85,976,155		85,976,155	94,509,041
2009 PVRR	153,383,226	14,945,173	24,389,184		192,717,582		354,316,774		354,316,774	547,034,356
Cubic Yards	9,542,500	6,072,500	9,542,500		25,157,500		25,157,500		25,157,500	25,157,500
									$/CY (PVRR)	$ 21.74

Annual Revenue Requirements - Ghent Landfill - KU Project 30 with Beneficial Reuse -Sterling Ventures Mine											
	Capital					O&M				Total
	Phase 1	Phase 2	Phase 3	Final Cap	Total	Non-Power	Power	Beneficial Reuse	Total O&M	
12/31/2009	480,509	-	-		480,509		84,800	-	84,800	565,309
12/31/2010	3,553,056	-	-		3,553,056		127,832	-	127,832	3,680,888
12/31/2011	7,177,211	-	-		7,177,211		198,348	-	198,348	7,375,559
12/31/2012	13,654,069	-	-		13,654,069		294,577	-	294,577	13,948,646
12/31/2013	14,678,389	-	-		14,678,389		24,380,117	(489,556)	23,890,561	38,568,950
12/31/2014	15,152,993	-	-		15,152,993		26,056,704	(495,467)	25,561,237	40,714,230
12/31/2015	14,539,006	-	-		14,539,006		27,290,868	(436,289)	26,854,579	41,393,584
12/31/2016	13,883,815	-	-		13,883,815		28,578,421	(387,511)	28,190,911	42,074,725
12/31/2017	13,255,915	-	-		13,255,915		29,956,559	(348,918)	29,607,640	42,863,556
12/31/2018	12,653,016	-	-		12,653,016		31,612,174	(501,636)	31,110,538	43,763,554
12/31/2019	12,016,402	-	-		12,016,402		33,594,783	(873,325)	32,721,458	44,737,860
12/31/2020	11,379,788	-	-		11,379,788		35,566,861	(1,101,031)	34,465,830	45,845,618
12/31/2021	10,743,173	-	-		10,743,173		38,056,766	(1,114,736)	36,942,030	47,685,203
12/31/2022	10,106,559	-	-		10,106,559		39,920,041	(1,025,754)	38,894,287	49,000,846
12/31/2023	9,469,945	-	-		9,469,945		41,890,306	(931,433)	40,958,872	50,428,818
12/31/2024	8,833,331	-	-		8,833,331		44,529,811	(1,382,478)	43,147,333	51,980,664
12/31/2025	8,196,717	-	-		8,196,717		47,885,193	(2,392,499)	45,492,694	53,689,411
12/31/2026	7,560,103	52,720	-		7,612,823		51,399,644	(3,382,211)	48,017,432	55,630,256
12/31/2027	6,923,489	156,032	-		7,079,520		54,431,913	(3,728,255)	50,703,658	57,783,179
12/31/2028	6,286,875	993,170	-		7,280,044		55,178,509	(3,378,832)	51,799,676	59,079,720
12/31/2029	5,650,260	2,639,761	-		8,290,021		57,858,589	(2,798,637)	55,059,952	63,349,973
12/31/2030	5,013,646	3,691,001	-		8,704,647		60,699,474	(2,349,913)	58,349,561	67,054,208
12/31/2031	4,377,032	3,904,584	-		8,281,616		63,710,812	(2,101,930)	61,608,882	69,890,498
12/31/2032	3,740,418	3,734,217	-		7,474,635		66,902,830	(1,942,577)	64,960,253	72,434,888
12/31/2033	3,103,804	3,563,850	-		6,667,654		70,286,369	(1,773,662)	68,512,707	75,180,361
12/31/2034	2,467,190	3,393,483	-		5,860,673		73,872,921	(1,594,613)	72,278,307	78,138,980
12/31/2035	1,830,576	3,223,116	-		5,053,692		77,674,665	(1,404,821)	76,269,844	81,323,536
12/31/2036	1,193,961	3,052,749	-		4,246,711		81,704,515	(1,203,641)	80,500,873	84,747,584
12/31/2037	557,347	2,882,383	-		3,439,730		85,976,155	(990,391)	84,985,764	88,425,494
2009 PVRR	111,212,472	5,355,077	-		116,567,550		354,316,774	(10,448,976)	343,867,798	460,435,348
Cubic Yards	17,350,000	7,807,500			25,157,500		25,157,500		25,157,500	25,157,500
									$/CY (PVRR)	$ 18.30

CASE	Option 30	Option 30 with Beneficial Reuse
PVRR		
Capital	$ 192,717,582	$ 116,567,550
O&M	354,316,774	343,867,798
Total	$ 547,034,356	$ 460,435,348
Delta to Least Cost	$ 86,599,008	Least Cost
Unit Cost (2009 PVRR $/CY)	$ 21.74	$ 18.30

NOTE-This Table Requires $9.00 Price Inserted Into cell D16 of PVRR Analysis

Annual Revenue Requirements - Ghent Landfill - KU Project 30 with Beneficial Reuse -Sterling Ventures Mine With Scrubber Stone Backhaul

	Capital					O&M				Total
	Phase 1	Phase 2	Phase 3	Final Cap	Total	Non-Power	Power	Beneficial Reuse	Total O&M	
12/31/2009	480,509	-	-		480,509		84,800	-	84,800	565,309
12/31/2010	3,553,056	-	-		3,553,056		127,832	-	127,832	3,680,888
12/31/2011	7,177,211	-	-		7,177,211		198,348	-	198,348	7,375,559
12/31/2012	13,654,069	-	-		13,654,069		294,577	-	294,577	13,948,646
12/31/2013	14,678,389	-	-		14,678,389		24,380,117	(1,989,556)	22,390,561	37,068,950
12/31/2014	15,152,993	-	-		15,152,993		26,056,704	(2,085,467)	23,971,237	39,124,230
12/31/2015	14,539,006	-	-		14,539,006		27,290,868	(2,121,689)	25,169,179	39,708,184
12/31/2016	13,883,815	-	-		13,883,815		28,578,421	(2,174,035)	26,404,387	40,288,201
12/31/2017	13,255,915	-	-		13,255,915		29,956,559	(2,242,634)	27,713,925	40,969,840
12/31/2018	12,653,016	-	-		12,653,016		31,612,174	(2,508,974)	29,103,199	41,756,215
12/31/2019	12,016,402	-	-		12,016,402		33,594,783	(3,001,104)	30,593,680	42,610,081
12/31/2020	11,379,788	-	-		11,379,788		35,566,861	(3,356,477)	32,210,385	43,590,172
12/31/2021	10,743,173	-	-		10,743,173		38,056,766	(3,505,508)	34,551,257	45,294,431
12/31/2022	10,106,559	-	-		10,106,559		39,920,041	(3,559,973)	36,360,069	46,466,628
12/31/2023	9,469,945	-	-		9,469,945		41,890,306	(3,617,705)	38,272,601	47,742,546
12/31/2024	8,833,331	-	-		8,833,331		44,529,811	(4,229,926)	40,299,885	49,133,216
12/31/2025	8,196,717	-	-		8,196,717		47,885,193	(5,410,794)	42,474,399	50,671,116
12/31/2026	7,560,103	52,720	-		7,612,823		51,399,644	(6,581,604)	44,818,040	52,430,863
12/31/2027	6,923,489	156,032	-		7,079,520		54,431,913	(7,119,611)	47,312,302	54,391,823
12/31/2028	6,286,875	993,170	-		7,280,044		55,178,509	(6,973,670)	48,204,839	55,484,883
12/31/2029	5,650,260	2,639,761	-		8,290,021		57,858,589	(6,609,164)	51,249,425	59,539,446
12/31/2030	5,013,646	3,691,001	-		8,704,647		60,699,474	(6,389,072)	54,310,402	63,015,049
12/31/2031	4,377,032	3,904,584	-		8,281,616		63,710,812	(6,383,438)	57,327,373	65,608,989
12/31/2032	3,740,418	3,734,217	-		7,474,635		66,902,830	(6,480,976)	60,421,854	67,896,489
12/31/2033	3,103,804	3,563,850	-		6,667,654		70,286,369	(6,584,365)	63,702,004	70,369,657
12/31/2034	2,467,190	3,393,483	-		5,860,673		73,872,921	(6,693,958)	67,178,962	73,039,635
12/31/2035	1,830,576	3,223,116	-		5,053,692		77,674,665	(6,810,127)	70,864,538	75,918,230
12/31/2036	1,193,961	3,052,749	-		4,246,711		81,704,515	(6,933,266)	74,771,249	79,017,960
12/31/2037	557,347	2,882,383	-		3,439,730		85,976,155	(7,063,793)	78,912,362	82,352,092
2009 PVRR	111,212,472	5,355,077	-		116,567,550		354,316,774	(33,255,638)	321,061,136	437,628,685
Cubic Yards	17,350,000	7,807,500			25,157,500		25,157,500		25,157,500	25,157,500
									$/CY (PVRR)	$ 17.40

CASE	Option 30	Option 30 with Beneficial Reuse
PVRR		
Capital	$ 192,717,582	$ 116,567,550
O&M	354,316,774	321,061,136
Total	$ 547,034,356	$ 437,628,685
Delta to Least Cost	$ **109,405,671**	Least Cost
Unit Cost (2009 PVRR $/CY)	$ 21.74	$ 17.40

From: Schram, Chuck(/O=LGE/OU=LOUISVILLE/CN=RECIPIENTS/CN=SCHRAMC)
To: Schram, Chuck
CC:
BCC:
Subject: FW: Ghent Landfill Beneficial Reuse Opportunity
Sent: 06/30/2015 05:00:10 PM -0400 (EDT)
Attachments: Ghent PVRR 12-7-11.xlsx - 117 KB; Ghent Project 30 PVRR Table SV Option2.pdf - 85 KB; Ghent Project 30 PVRR Table SV Option1.pdf - 80 KB; Ghent Project 30 PVRR Table.pdf - 76 KB; Sterling Ventures Permit 11-19-2010.pdf - 84 KB; Form 7056.pdf - 1 MB;

From: Schram, Chuck
Sent: Monday, December 12, 2011 7:01 AM
To: Wilson, Stuart
Subject: FW: Ghent Landfill Beneficial Reuse Opportunity
Are you aware of this one?

From: John Walters [mailto:johnwalters@sterlingventures.com]
Sent: Saturday, December 10, 2011 5:15 PM
To: Schram, Chuck
Subject: Fwd: Ghent Landfill Beneficial Reuse Opportunity

---------- Forwarded message ----------
From: **John Walters** <johnwalters@sterlingventures.com>
Date: Sat, Dec 10, 2011 at 5:06 PM
Subject: Ghent Landfill Beneficial Reuse Opportunity
To: jeff.heun@lge-ku.com
Cc: Scott Straight <scott.straight@lge-ku.com>, Caryl Pfeiffer <caryl.pfeiffer@lge-ku.com>, john.voyles@lge-ku.com, charles.schram@lge-ku.com, Jeff Joyce <jeff.joyce@lge-ku.com>

Jeff
I understand from Scott Straight that you are evaluating the comparative PVRR cost projections for the beneficial reuse of Ghent's gypsum at Sterling Ventures' underground limestone mine. I am continuing to make minor adjustments to the comparative projections as we learn more information. Attached is the latest PVRR cost comparison.
In PSC Case No. 2009-00197, Charles Schram submitted, as part of his testimony, the PVRR analysis table that the Company would use to evaluate new beneficial reuse opportunities that could minimize disposal cost by delaying or eliminating construction of future phases. I have added three worksheets (KU PVRR Project 30, PVRR SV Option1 and PVRR SV Option2) to the attached excel file. Those worksheets (also attached as pdfs) convert my original PVRR comparison worksheet to the format that Mr. Schram indicated would be used in this situation. I apologize for not providing the beneficial reuse savings projections in this format earlier.
As I have indicated in prior emails, the comparative PVRR projections are based on certain assumptions about the timing of the remaining $160 million construction costs of Phases 2 and 3 of the landfill. I have based my capital cost timing assumptions, and the O&M costs, on the retirement studies analysis in KU's recent Environmental Surcharge case. We would welcome the opportunity to meet with you about refining, correcting and updating the construction timing and cost assumptions in the attached.
I am also attaching, for your review, the Form 7059 for that we filed in July 2010, and a copy of the resulting Beneficial Reuse Special Waste Permit for Ghent's gypsum the we received in November, 2010.
Hopefully, our existing Beneficial Reuse Permit can provide a timely alternative that can delay or eliminate near and long term landfill construction costs and equipment purchases at Ghent, and result in significant savings for KU and its' customers.
Could you possibly confirm receipt of this email, and also let me know when you believe your preliminary analysis will be completed?
I look forward to hearing from you.
John Walters
--

John W. Walters, Jr.

Sterling Ventures, LLC

376 South Broadway

Lexington, KY 40508

Phone (859) 259-9600

Fax (859) 259-9601

johnwalters@sterlingventures.com

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John W. Walters, Jr.

Sterling Ventures, LLC

376 South Broadway

Lexington, KY 40508

Phone (859) 259-9600

Fax (859) 259-9601

johnwalters@sterlingventures.com

From: Schram, Chuck(/O=LGE/OU=LOUISVILLE/CN=RECIPIENTS/CN=SCHRAMC)
To: Schram, Chuck
CC:
BCC:
Subject: FW: Ghent Landfill Beneficial Reuse Opportunity
Sent: 06/30/2015 05:00:10 PM -0400 (EDT)
Attachments: Ghent PVRR 12-7-11.xlsx - 117 KB; Ghent Project 30 PVRR Table SV Option2.pdf - 85 KB; Ghent Project 30 PVRR Table SV Option1.pdf - 80 KB; Ghent Project 30 PVRR Table.pdf - 76 KB; Sterling Ventures Permit 11-19-2010.pdf - 84 KB; Form 7056.pdf - 1 MB;

From: Schram, Chuck
Sent: Monday, December 12, 2011 7:01 AM
To: Wilson, Stuart
Subject: FW: Ghent Landfill Beneficial Reuse Opportunity

Are you aware of this one?

From: John Walters [mailto:johnwalters@sterlingventures.com]
Sent: Saturday, December 10, 2011 5:15 PM
To: Schram, Chuck
Subject: Fwd: Ghent Landfill Beneficial Reuse Opportunity

---------- Forwarded message ----------
From: **John Walters** <johnwalters@sterlingventures.com>
Date: Sat, Dec 10, 2011 at 5:06 PM
Subject: Ghent Landfill Beneficial Reuse Opportunity
To: jeff.heun@lge-ku.com
Cc: Scott Straight <scott.straight@lge-ku.com>, Caryl Pfeiffer <caryl.pfeiffer@lge-ku.com>, john.voyles@lge-ku.com, charles.schram@lge-ku.com, Jeff Joyce <jeff.joyce@lge-ku.com>

Jeff

I understand from Scott Straight that you are evaluating the comparative PVRR cost projections for the beneficial reuse of Ghent's gypsum at Sterling Ventures' underground limestone mine. I am continuing to make minor adjustments to the comparative projections as we learn more information. Attached is the latest PVRR cost comparison.

In PSC Case No. 2009-00197, Charles Schram submitted, as part of his testimony, the PVRR analysis table that the Company would use to evaluate new beneficial reuse opportunities that could minimize disposal cost by delaying or eliminating construction of future phases. I have added three worksheets (KU PVRR Project 30, PVRR SV Option1 and PVRR SV Option2) to the attached excel file. Those worksheets (also attached as pdfs) convert my original PVRR comparison worksheet to the format that Mr. Schram indicated would be used in this situation. I apologize for not providing the beneficial reuse savings projections in this format earlier.

As I have indicated in prior emails, the comparative PVRR projections are based on certain assumptions about the timing of the remaining $160 million construction costs of Phases 2 and 3 of the landfill. I have based my capital cost timing assumptions, and the O&M costs, on the retirement studies analysis in KU's recent Environmental Surcharge case. We would welcome the opportunity to meet with you about refining, correcting and updating the construction timing and cost assumptions in the attached.

I am also attaching, for your review, the Form 7059 for that we filed in July 2010, and a copy of the resulting Beneficial Reuse Special Waste Permit for Ghent's gypsum the we received in November, 2010.

Hopefully, our existing Beneficial Reuse Permit can provide a timely alternative that can delay or eliminate near and long term landfill construction costs and equipment purchases at Ghent, and result in significant savings for KU and its' customers.

Could you possibly confirm receipt of this email, and also let me know when you believe your preliminary analysis will be completed?

I look forward to hearing from you.

John Walters

--

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From: Schram, Chuck(/O=LGE/OU=LOUISVILLE/CN=RECIPIENTS/CN=SCHRAMC)
To: Pfeiffer, Caryl
CC: Wilson, Stuart; Farhat, Monica
BCC:
Subject: Fwd: Scrubber Stone RFQ
Sent: 03/26/2013 06:10:32 PM -0400 (EDT)
Attachments: 20120224_SterlingVenturesProposal_Ghent_2012ECR.docx; ATT00001.htm;

Caryl,
See Monica's attached email. Based on the new bid, we need to revisit the evaluation that we did last year.

Chuck

Sent from my iPhone

Begin forwarded message:

> **From:** "Farhat, Monica" <Monica.Farhat@lge-ku.com>
> **Date:** March 26, 2013, 3:37:54 PM EDT
> **To:** "Schram, Chuck" <Chuck.Schram@lge-ku.com>, "Wilson, Stuart" <Stuart.Wilson@lge-ku.com>
> **Subject: RE: Scrubber Stone RFQ**
>
> In late 2011, Sterling proposed the following:
>
> <!--[if !supportLists]-->- <!--[endif]-->$10.95/ton to haul and store gypsum
> <!--[if !supportLists]-->- <!--[endif]-->$6.5/ton to supply limestone
>
> Our analysis considered the proposal's impact to the station's CCP storage and limestone costs and ultimately concluded that the proposal was more costly than storing CCPs on-site and sourcing limestone from another supplier. We determined that Sterling's cost to transport gypsum would have to decrease from $10.95/ton to $8.75/ton to break-even with the Company's current plans for CCP storage and limestone supply (see attached for more details).
>
> In the new proposal, Sterling has decreased the gypsum hauling cost and increased their limestone cost. It appears that their limestone cost is slightly more expensive than the other bidders ($9.80/ton versus $9.50/ton). Since their gypsum hauling cost of $6.75/ton is less than the break-even cost that was previously determined, it's not obvious to us that we shouldn't consider this proposal more carefully.
>
> Thanks,
> Monica
>
> ---
>
> From: Wilson, Stuart
> Sent: Tuesday, March 26, 2013 11:35 AM
> To: Farhat, Monica
> Subject: FW: Scrubber Stone RFQ
>
> Email from Carol…
>
> ---
>
> From: Schram, Chuck
> Sent: Tuesday, March 26, 2013 11:24 AM
> To: Wilson, Stuart
> Subject: FW: Scrubber Stone RFQ
>
> fyi
>
> ---
>
> From: Pfeiffer, Caryl
> Sent: Monday, March 25, 2013 2:40 PM
> To: Schram, Chuck

Subject: FW: Scrubber Stone RFQ

Walters/Sterling responded to our recent scrubber stone solicitation with the following proposal:
Limestone delivered into Ghent and Trimble County with the haul-back of gypsum (Ghent gypsum to the Sterling quarry and Trimble County gypsum to the Ghent landfill). All truck delivery (they estimate 20 hours/day). No bid for Mill Creek. No bid of limestone alone to any plant or combination of plants. They say they need to have a contract in place by June 30th.

Ghent: $9.80/ton of stone plus $6.75/ton for gypsum haul-back
Trimble County: $9.58/ton of stone plus $6.00/ton for gypsum haul-back

Our low bidders are proposing $7.00/ton of stone plus $2.50/ton barging cost (to Crounse) for delivery into Mill Creek, Trimble County and Ghent (if we carve out any plant(s) from their proposals, then they have the ability to come back and raise their price as part of their bid responses).

Thus, Sterling is not competitive on the stone to begin with and not only would we have to make modifications at each of the plants to accept delivery of stone by truck, but also we would have to pay for the haul-back of gypsum. I feel comfortable telling them they are not the low bidder, but I would like to repeat some of the verbiage we used earlier to tell them why they were not a viable disposal alternative for gypsum.

From: John Walters [mailto:johnwalters@sterlingventures.com]
Sent: Tuesday, March 19, 2013 11:07 AM
To: Gilbert, Bill G.; Pfeiffer, Caryl; Alex Boone; Dotson, Mike
Subject: Scrubber Stone RFQ

Bill
Could you give me an update on the normalization process in connection with the January 22, 2013 RFQ for scrubber limestone at Mill Creek, Trimble County and Ghent? I know that because our bid includes gypsum disposal, including the cost saving from delaying the construction of Phases 2 and 3 of the Ghent Landfill, and the most cost effective means of dealing with Trimble County CCPs, complicates the normalization process.
In addition, I assume there are cost consideration, both increases and decreases, from delivering limestone by truck verses barge. Several years ago, we began discussions with plant personnel at Ghent about the efficiencies of dedicating Ghent's barge load-out equipment to coal only, and building a hopper and conveyor on site to convey stone delivered by truck directly into your limestone inventory pile. We would be more than happy to meet with you and/or Ghent and Trimble County operations personnel to answer questions or discuss issues or concerns about truck delivery of limestone.
Again, we appreciate the opportunity to work with you both as a limestone source, and to develop options to lower the overall cost to you and your customers of land-filling CCPs.
John

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Ghent Station:
Analysis of Off-Site Gypsum Storage Proposal

PPL companies

Generation Planning & Analysis
February 24, 2012

1 Background

In the June 2009 ECR filing, several alternatives were considered for storing coal combustion residuals (CCR) at the Ghent Station over the next 25 years. The least-cost alternative included (a) the construction of an on-site landfill to store ash and gypsum and (b) a short-term agreement with Trans Ash to move CCR offsite until new landfill capacity became available in 2013. After the ECR filing, the EPA issued new CCR rules and Trans Ash's storage facility was no longer considered to be an approved structural fill. In 2010, after updating its forecast of CCR production, the Company learned that the short-term need for off-site ash storage had been eliminated and that the short-term need for offsite gypsum storage had been reduced to 0.1 million cubic yards (MCY). Sterling Ventures (Sterling) was identified as a potential alternative for storing the gypsum but no agreement was ultimately reached. Based on the Company's most recent CCR production forecast, the short-term need for offsite gypsum storage no longer exists. In late 2011, Sterling Ventures submitted a new proposal for storing gypsum.

2 Sterling Proposal

Sterling has proposed to store all gypsum from the Ghent Station (net of sales to CertainTeed) in its offsite storage facility for $10.95/ton. Per the proposal, Sterling will excavate, load, and haul gypsum from the existing gypsum stack at the Ghent station. In doing this, Sterling claims that the Company can defer the need for subsequent landfill phases and avoid approximately $53 million in capital costs for a dry gypsum handling system, gypsum fines project, and gypsum dewatering facility. In addition, by eliminating the need to store gypsum altogether, Sterling claims that Company can realize further capital savings by reverting to a CCR storage alternative from the 2009 ECR filing that included a smaller landfill located closer to the Ghent station. Finally, in addition to its proposal for storing gypsum, Sterling has proposed to backhaul high calcium limestone to the Ghent station for $6.50/ton. See Attachment 1 for the Sterling Ventures proposal.

3 Analysis of Sterling Proposal

The Company considered the Sterling proposal as an alternative to its current plan. Due to the costs and risks associated with operating a gypsum stack, the Company plans to retire the gypsum stack when the new landfill is in service. Therefore, contrary to Sterling's claims, Sterling will not be able to take gypsum from the existing gypsum stack and the Company will not be able to avoid the capital costs for the dry gypsum handling system, gypsum fines project, and gypsum dewatering facility. In addition, selecting a different landfill alternative at the Ghent station is not a viable option because this would require new environmental permits and delay the project by two years.

Table 1 contains a summary of the assumptions used in this analysis. The Sterling proposal defers the need for Phase II of the currently proposed landfill and eliminates the need for Phase III of the landfill altogether. Because gypsum comprises 60% of all CCR, Phases I and II of the landfill with the Sterling proposal have seven more years of landfill capacity than all phases of the landfill without the Sterling proposal. With the Sterling proposal, gypsum is dewatered at the station and transported by Sterling to

an offsite storage facility for $10.95/ton. With the Company's current plan, gypsum with the same moisture content is delivered to the landfill for $4.43/ton.

Table 1 – Summary of Assumptions ($2013)

	Landfill Only	Landfill w/ Sterling Ventures Proposal
In-Service Year/Capacity of Phase I	2013 / 14.3 MCY	2013 / 14.3 MCY
In-Service Year/Capacity of Phase II	2022 / 14.5 MCY	2028 /14.5 MCY
In-Service Year/Capacity of Phase III	2031 / 23.0 MCY	N/A
Landfill End of Service Year	2046	2053
Dewatering Cost (all CCR)	$112,200 per month	$112,200 per month
Sterling Transport and Storage Cost	N/A	$10.95/wet ton
Cost to Place CCR in Landfill	$4.43/wet ton	$4.43/wet ton

The results of this analysis are summarized in Table 2. The levelized cost per cubic yard of CCR placed (either in the landfill or transported to an offsite storage facility) is lower in the Company's current plan; the savings in the Sterling proposal associated with deferring or eliminating the need for landfill phases are more than offset by the higher variable costs of transporting gypsum to an offsite storage facility.

Table 2 – Analysis Results

	Landfill Only	Landfill w/ Sterling Ventures Proposal
Net Present Value Revenue Requirements (NPVRR, $Millions)		
Capital	348	297
O&M	169	313
Total	517	610
Levelized NPVRR/CY (Dollars)	$24.51	$27.63

Sterling's cost to transport and store gypsum is $10.95/wet ton. This cost must decrease to $7.50/wet ton to break even with the Company's current proposal.

Concerning the option to purchase limestone from Sterling, Ghent's current cost of limestone is higher than $6.50/ton. If the savings in limestone costs are credited to the Sterling proposal, the Sterling proposal compares more favorably to the Company's current proposal, but the Company's current proposal is still least-cost. With the limestone option, Sterling's 'break-even' cost increases from $7.50/wet ton to $8.75/wet ton.

From: Schram, Chuck(/O=LGE/OU=LOUISVILLE/CN=RECIPIENTS/CN=SCHRAMC)
To: Wilson, Stuart
CC:
BCC:
Subject: Fw: Sterling Ventures Gypsum Proposal
Sent: 01/20/2012 04:42:56 PM -0500 (EST)
Attachments: Exhibit 1.pdf; Exhibit 2.pdf; Exhibit 3.pdf; Exhibit 4.pdf;

From: Joyce, Jeff
Sent: Friday, January 20, 2012 03:18 PM
To: Schram, Chuck
Subject: FW: Sterling Ventures Gypsum Proposal

From: John Walters [mailto:johnwalters@sterlingventures.com]
Sent: Thursday, January 19, 2012 2:49 PM
To: Joyce, Jeff; Pfeiffer, Caryl
Cc: Alex Boone
Subject: Sterling Ventures Gypsum Proposal

Jeff

I understand from Scott Straight that you are now in charge of doing the PVRR comparative analysis of Sterling's proposal to use the new landfill at Ghent for ash only, with gypsum disposal at our underground mine. Attached is our effort at a PVRR comparative analysis of all gypsum going to Sterling, verses into your new landfill. We based our comparative PVRR analysis on the projected O&M and capital cost for the landfill that KU filed with the PSC in 2009, and confirmed in 2011.

Attached Exhibit 1 is a general summary of our proposal, as well as the assumptions used in the PVRR analysis of that proposal. Exhibits 2 and 3 are PVRR analyses under two separate scenarios. The first, Exhibit 2, is a straight PVRR comparison to the landfill, as detailed in the 2009 filings with the PSC, versus using our underground limestone mine for gypsum beneficial reuse disposal. In this scenario, our proposal is the least cost alternative by $260,498,235.00 (PVRR least cost alternative by $86,599,008.00).

Exhibit 3 is a PVRR comparison assuming KU purchases scrubber limestone from Sterling, which is then backhauled to Ghent. Here, our proposal is the least cost alternative by $342,795,003.00 (PVRR least cost alternative by $109,405,671.00). In both PVRR analyses, $222,368,117.00 of the saving comes from a reduction in Return on Equity from reduced capital costs. As you will see, Exhibit 3 assumes a delivered scrubber stone price of $8.50 ($7.00 stone with $1.50 trucking allocation out of the $4.50 round trip gypsum trucking), which based on documents filed with the PSC, should approximate the delivered cost of scrubber stone from Mulzer.

Exhibit 4 is the PVRR comparative analysis from Exhibits 2 and 3 in the table format that Charles Schram identified that you would use in your PVRR analysis of beneficial reuse opportunities.

I also understand from documents KU filed with the PSC that the landfill's CCP transport system cost may be significantly over the original projection, and that the projected capital cost of Phase I has increased from $204,000,000 to $283,000,000. Please note that the increase in the cost of Phase I has not been included in our PVRR analysis, and therefore the savings from our proposal may increase as a result of the additional capital required for Phase I.

As you can see from our projections, in addition to O&M cost savings, you can delay Phase II of the Ghent Landfill project by eleven years, and completely eliminate Phase III. You can also avoid purchasing gypsum handling equipment. However, these savings assume that all gypsum is beneficially reused at Sterling's underground mine starting with the opening of Phase I in 2013.

In Scott Straight's email to me indicating that you are now in charge of the PVRR comparative analysis, he stated that Sterling's proposal "could have merit in a few years to defer the next phased expansion of the landfill", but that "[t]he next phase of the landfill is years away…." I must admit that I am confused by Scott's conclusion. It would appear that if the ability to avoid placing gypsum in the Ghent landfill "could have merit in a few years," it also possibly has merit today. Our permit for your gypsum is approved and in place.

As indicated above, failing to take advantage of the Sterling opportunity in 2013 when the landfill opens would result in the unnecessary purchase of gypsum related equipment, and the placement of approximately 850,000 cubic yards per year of gypsum into the landfill, thereby reducing its life. The projected savings from our proposal between 2012 and 2019 (the projected opening of Phase II) is $41,900,000.00, without backhauling limestone, and $54,941,000.00 if you take advantage of the limestone backhaul option.

If you anticipate opening the landfill in 2013, planning needs to begin immediately if you are going to take advantage of our beneficial reuse opportunity. We need to address numerous details and logistics, as well as negotiate a contract. In addition, as indicated above, the greatest saving potential for you occurs when you purchase hi-calcium scrubber limestone from Sterling. My understanding from documents filed with the PSC, the existing contract with Mulzer Crushed Stone for Ghent's scrubber limestone is a 9-year contract ending late 2014, with an "opt-out" provision in 2012. I also understand KU's normal practice is to enter into long terms contracts for scrubber stone. If you want to take full advantage of the potential savings, we would also need to negotiate a contract for limestone.

There are obviously numerous details we need to discuss in order for you to complete your own PVRR analysis of our proposal. Could you please let me know within the next couple of days if you are planning to do your PVRR analysis now, or as Scott indicated, you will be delaying that analysis for a few years?

Thank you for your consideration. I look forward to hearing from you.

John

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GHENT STATION ALTERNATIVE FOR CCP/GYPSUM DISPOSAL

Background

Sterling Materials is an active underground limestone mine located in Verona, Kentucky, approximately 20 miles from Kentucky Utilities Company's Ghent Station. Sterling currently mines between 1,000,000 and 1,600,000 tons of limestone per year, and has been in operation since 2000.

In addition to producing limestone for the general aggregate construction market, Sterling also mines high calcium limestone for Mississippi Lime Company for use in Mississippi Lime's kiln located on Sterling's property. This high calcium limestone is also suitable for use as scrubber stone in Ghent's limestone FGD scrubber system.

In November 2010, Sterling obtained a Beneficial Reuse Special Waste Permit from the Kentucky Department of Environmental Protection, Division of Waste Management specifically allowing the beneficial reuse of Ghent's FGD gypsum in Sterling's mine.

KU has proposed building a new landfill at Ghent in three phases for an estimated total cost of $360,000,000 to handle the plant's three coal combustion by-products ("CCPs") through 2037[1]. KU forecasted the following wet storage CCP production volumes for Ghent Station (Cubic Yards):

Year	Fly Ash	Bottom Ash	Gypsum
2009	540,000	140,000	880,000
2010	550,000	150,000	1,090,000
2011	580,000	150,000	1,120,000
2012	550,000	150,000	1,060,000
2013	550,000	150,000	1,090,000

Source: Coal Combustion Byproduct Plan for Ghent Station June 2009 (the "Ghent CCP Plan", page 7)

Ghent's FGD gypsum is currently placed in a wet gypsum stacking pond. Ghent also has a contract to supply CertainTeed, Inc. with gypsum, and KU has estimated that CertainTeed will purchase approximately 222,000 cubic yards per year of gypsum from Ghent. As a result, Ghent will be required to continue diverting a portion of its gypsum production to the gypsum stacking pond.

Alternative Proposal for Gypsum Disposal at Sterling Materials' Mine

Sterling Materials is proposing that Ghent send all of its gypsum production (net of sales CertainTeed) to Sterling's mine for beneficial reuse, with Ghent's with the new landfill being used for ash disposal only. Sterling estimates that the PVRR cost saving from the beneficial reuse of Ghent's gypsum is at least $80,000,000. The substantial saving are generated from the ability to significantly delay the construction of phase 2 of the landfill, completely eliminate phase 3, and eliminate gypsum related

[1] Phase I cost thru 2018 of $203,969,979 as set forth in Revenue Requirement Summary for Project 30 – Ghent Landfill Phase I attached. Total project capital cost estimated to be $360,000,000 per direct testimony of John Voyles before the Kentucky Public Service Commission in Case No. 2009-00197.

capital cost and expenses associated with the landfill (all gypsum continue to be placed in stacking pond for transfer to CertainTeed and Sterling Materials).

Sterling is not proposing that the Ghent landfill not be built, but rather that KU take advantage of Sterling's Beneficial Reuse Permit so that the life of the landfill can be extended, and capital and operating cost be eliminated, by diverting the gypsum that would have been placed in the landfill to Sterling's mine. The attached PVRR analysis assumes that all gypsum would be diverted beginning with the opening of the new landfill.

Assumptions in Ghent Project 30 PVRR Analysis

1. Total price for loading, hauling and fees to Sterling Materials of $10.50 in 2013.
2. Net CCP production of approximately 868,000 cubic yards (1,090,000 – 222,000 to CertainTeed).
3. Cubic yards to ton conversion factor – cy x 1.155 (based on Trans Ash conversion assumption of 1.3 MCY equals 1.5 million tons as hauled - see page 10 of Ghent CCP Plan).
4. Reduce Phase I construction cost by $53,110,000[2] by continuing to place gypsum temporarily in existing gypsum stacking pond until shipment to Sterling.

Dry Gypsum Handling System	$36,800,000
Gypsum Fines Project	$12,600,000
Gypsum Dewatering Facility Earthwork	$ 3,710,000

5. Phase III landfill construction cost eliminated. Phase II construction delayed from 2018 to 2030.
   - Phase I capacity – 14.7 MCY (See Ghent CCP Plan page 12)
   - Ash Production – 700,000 MCY (See Ghent CCP Plan page 7)
   - Phase I life until full – 21 years
6. Total Phase II and III construction costs - $157,421,024 (timing and amounts of expenditures based retirement studies analysis in PSC Case No. 2011-00162)
   - Phase II construction cost - $40,000,000
   - Phase III construction cost - $117,421,024
7. Eliminate following Ghent Landfill Operating Expenses 2013 Estimates (See Ghent Landfill - Phase I attached)

Dry Gypsum Handling System	$ 682,495
Hauling Gypsum to Landfill	
Loading	$1,746,384
Phase I-2.25 mile round trip	$3,997,156
Landfilling Gypsum	$3,143,492

8. Continue 2018 Annual Depreciation Rate of 2.7899% on Eligible Capital through 2037
9. Continue 2018 Property Tax Expense Rate of .1259% on Eligible Capital through 2037
10. Apply KU O&M Escalation Rate of 6% and Discount Rate of 7.81% (See Ghent CCP Plan, page 22).

[2] See Ghent Landfill - Phase I attached.

Purchase of Scrubber Stone from Sterling

Sterling Materials mines a high calcium seam of limestone in its 2nd and 3rd levels that will meet, and possibly exceed, Ghent's calcium specifications for scrubber stone. Based on general industry knowledge, without verification, it is believed that Ghent's current cost of scrubber stone FOB plant is approximately $8.50.

The proposed price of $10.50 for gypsum disposal at Sterling includes $4.50 per ton for transportation, based upon an assumed round trip turn of 1.5 hours, and $75.00 per hour to haul 25 tons.

Sterling is proposing to sell high calcium limestone to Ghent for $7.00 per ton (as of October, 2011) and backhauling the stone to Ghent. If a $1.50 per ton trucking fee is assigned to the transportation of the limestone, Ghent will incur no additional cost for it scrubber stone. However, reducing the transportation component of the gypsum disposal cost by $1.50 reduces the proposed disposal cost from $10.50 to $9.00 per ton, and correspondingly increases the PVRR saving advantage from approximately $80,000,000 to over $100,000,000.

Construct Ash Storage Pond at Site M (see Ghent CCP Plan, Page 12)

It would appear that transporting gypsum to Sterling's mine, then using Site M as an ash landfill, verses Site E/F, would substantially reduce ash disposal cost and further increase the PVRR saving from disposing all of Ghent's gypsum at Sterling.

Site M is substantially closer to Ghent than Site E/F. The estimated cost of hauling fly and bottom ash to Site E/F is $2,822,723 in 2013, and the corresponding haul Road maintenance cost is $53,529. Even reducing those costs by a modest 50% for the haul to Site M verses site E/F would produce another $21,800,000 in PVRR savings.

Revenue Requirments Summary
Gypsum Disposal at Sterling Materials

			2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Revenue Requirement													
Eligible Plant			$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 203,078,976	$ 204,078,976	$ 212,078,976	$ 228,078,976
Less Gypsum Plant Requirements/Phase Delays			$ -	$ (14,090,000)	$ (40,060,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,610,000)	$ (54,610,000)	$ (62,610,000)	$ (78,610,000)
Revised Eligible Plant			$ 4,321,671	$ 32,388,846	$ 65,425,803	$ 124,467,356	$ 138,023,918	$ 148,831,953	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976
Less Accumulated Depreciation							$ (3,690,414)	$ (7,842,826)	$ (12,013,010)	$ (16,183,194)	$ (20,353,378)	$ (24,523,563)	$ (28,693,747)
Less Deferred Tax Balance							$ (528,683)	$ (2,857,926)	$ (4,921,730)	$ (6,724,117)	$ (8,277,719)	$ (9,603,427)	$ (11,236,471)
Environmental Compliance Rate Base			$ 4,321,671	$ 32,388,846	$ 65,425,803	$ 124,467,356	$ 133,804,821	$ 138,131,202	$ 132,534,236	$ 126,561,665	$ 120,837,879	$ 115,341,986	$ 109,538,758
Rate of Return			11.1%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
Assumed Tons (1.155)	1,000,000		$ 480,509	$ 3,553,056	$ 7,177,211	$ 13,654,069	$ 14,678,389	$ 15,152,593	$ 14,539,006	$ 13,883,815	$ 13,255,915	$ 12,653,016	$ 12,016,402
86.7500% Cubic yards	867,500												
Operating Expenses			$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,556
less Gypsum to On-site Landfill							$ (9,569,527)	$ (10,143,699)	$ (10,752,321)	$ (11,397,460)	$ (12,081,307)	$ (12,806,186)	$ (13,574,557)
Gypsum to Sterling	$ 10.50						$ 10,500,000	$ 11,130,000	$ 11,797,800	$ 12,505,668	$ 13,256,008	$ 14,051,369	$ 14,894,451
Net Operating			$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,933,781	$ 21,129,808	$ 22,397,596	$ 23,741,452	$ 25,165,940	$ 26,675,896	$ 28,276,450
Annual Depreciation							$ 3,690,414	$ 4,152,411	$ 4,170,184	$ 4,170,185	$ 4,170,184	$ 4,170,184	$ 4,170,184
Annual Property Tax Expense				$ 6,483	$ 69,718	$ 158,229	$ 266,366	$ 279,017	$ 286,798	$ 279,274	$ 271,517	$ 264,458	$ 274,825
Total OE			$ 84,800	$ 127,832	$ 198,348	$ 294,577	$ 23,890,561	$ 25,561,237	$ 26,854,579	$ 28,190,911	$ 29,607,640	$ 31,110,538	$ 32,721,458
Total E(m) Gypsum to Sterling		$ 460,435,348	$ 565,309	$ 3,680,888	$ 7,375,559	$ 13,948,646	$ 38,568,950	$ 40,714,230	$ 41,393,584	$ 42,074,725	$ 42,863,556	$ 43,763,554	$ 44,737,860
Total E(m) - Project 30 (See below)		$ 547,034,356	$ 565,309	$ 5,226,561	$ 11,770,141	$ 19,774,813	$ 44,706,579	$ 46,601,539	$ 46,978,148	$ 47,430,316	$ 48,060,812	$ 49,736,723	$ 52,503,105
Difference PVRR	7.81%	$ (86,599,008)	$ -	$ (1,545,673)	$ (4,394,582)	$ (5,826,167)	$ (6,137,629)	$ (5,887,309)	$ (5,584,564)	$ (5,355,590)	$ (5,197,256)	$ (5,973,170)	$ (7,765,245)
Date			12/31/2009	12/31/2010	12/31/2011	12/31/2012	12/31/2013	12/31/2014	12/31/2015	12/31/2016	12/31/2017	12/31/2018	12/31/2019

Revenue Requirments Summary
2009 Amended Plan
Project 30 Ghent Landfill Phase I
See Exhibit B

			2009	2010	2011	2012	2013	2014	2015	2016 Start Phase II	2017	2018	2019
Revenue Requirement										$ 500,000	$ 1,000,000	$ 8,000,000	$ 16,000,000
Eligible Plant			$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 203,078,976	$ 204,078,976	$ 212,078,976	$ 228,078,976
Less Gypsum Plant Requirements/Phase Delays			$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Revised Eligible Plant			$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 203,078,976	$ 204,078,976	$ 212,078,976	$ 228,078,976
Less Accumulated Depreciation							$ (5,110,443)	$ (10,744,623)	$ (16,396,576)	$ (22,062,480)	$ (27,756,283)	$ (33,673,286)	$ (40,036,689)
Less Deferred Tax Balance							$ (732,114)	$ (3,915,341)	$ (6,717,677)	$ (9,166,960)	$ (11,288,480)	$ (13,186,459)	$ (15,678,367)
Environmental Compliance Rate Base			$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 185,291,361	$ 187,281,989	$ 179,464,723	$ 171,849,536	$ 165,034,213	$ 165,219,232	$ 172,363,920
Rate of Return			11.1%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
			$ 480,509	$ 5,098,729	$ 11,571,793	$ 19,480,236	$ 20,326,462	$ 20,544,834	$ 19,687,280	$ 18,851,894	$ 18,104,253	$ 18,124,550	$ 18,908,322
Difference		$ -											
Operating Expenses			$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,556
less Gypsum to On-site Landfill							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Gypsum to Sterling							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Net Operating			$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,556
Annual Depreciation							$ 5,110,443	$ 5,634,180	$ 5,651,953	$ 5,665,904	$ 5,693,803	$ 5,917,003	$ 6,363,403
Annual Property Tax Expense				$ 6,483	$ 69,718	$ 158,229	$ 266,366	$ 279,017	$ 286,798	$ 279,274	$ 271,517	$ 264,458	$ 274,825
Total OE			$ 84,800	$ 127,832	$ 198,348	$ 294,577	$ 24,380,117	$ 26,056,704	$ 27,290,868	$ 28,578,421	$ 29,956,559	$ 31,612,174	$ 33,594,783
Total E(m) Gypsum to On-site Landfill as Calculated		547,034,356	$ 565,309	$ 5,226,561	$ 11,770,141	$ 19,774,813	$ 44,706,579	$ 46,601,539	$ 46,978,148	$ 47,430,316	$ 48,060,812	$ 49,736,723	$ 52,503,105
Total E(m) Gypsum to On-site Landfill per KU			$ 565,309	$ 5,226,225	$ 11,769,378	$ 19,773,528	$ 44,705,239	$ 46,600,208	$ 46,976,843	$ 47,458,553	$ 48,044,547	$ 48,653,648	
Calculation Check Difference			$ -	$ 336	$ 763	$ 1,285	$ 1,340	$ 1,331	$ 1,305	$ (28,237)	$ 16,265	$ 1,083,075	
Site E/F Hauling cost of Ash 2.25 mile round trip							$ 2,822,728	$ 2,992,086	$ 3,171,612	$ 3,361,908	$ 3,563,623	$ 3,777,440	$ 4,004,087
Haul Road Maintenance							$ 53,529	$ 56,741	$ 60,145	$ 63,754	$ 67,579	$ 71,634	$ 75,932
Total							$ 2,876,252	$ 3,048,827	$ 3,231,757	$ 3,425,662	$ 3,631,202	$ 3,849,074	$ 4,080,018
Reduce by 50% for Site M			$ -	$ -	$ -	$ -	$ 1,438,126	$ 1,524,414	$ 1,615,878	$ 1,712,831	$ 1,815,601	$ 1,924,537	$ 2,040,009
Difference PVRR	7.81%	$ (21,865,903)											

Revenue Requirments Summary
Gypsum Disposal at Sterling Materials

			2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
									Start Phase II				
Revenue Requirement									$ 500,000	$ 1,000,000	$ 8,000,000	$ 16,000,000	$ 11,000,000
Eligible Plant			$ 239,078,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 262,328,976	$ 302,328,976	$ 342,328,976	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
Less Gypsum Plant Requirements/Phase Delays			$ (89,610,000)	$ (93,110,000)	$ (93,110,000)	$ (93,110,000)	$ (112,860,000)	$ (152,860,000)	$ (192,860,000)	$ (209,031,024)	$ (201,031,024)	$ (185,031,024)	$ (174,031,024)
Revised Eligible Plant			$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,968,976	$ 150,968,976	$ 158,968,976	$ 174,968,976	$ 185,968,976
Less Accumulated Depreciation			$ (32,863,931)	$ (37,034,115)	$ (41,204,299)	$ (45,374,483)	$ (49,544,667)	$ (53,714,851)	$ (57,898,986)	$ (62,111,020)	$ (66,546,254)	$ (71,427,888)	$ (76,616,422)
Less Deferred Tax Balance			$ (12,869,515)	$ (14,502,559)	$ (16,135,603)	$ (17,768,648)	$ (19,401,692)	$ (21,034,736)	$ (22,673,243)	$ (24,322,675)	$ (26,059,513)	$ (27,971,161)	$ (30,002,991)
Environmental Compliance Rate Base			$ 103,735,530	$ 97,932,302	$ 92,129,073	$ 86,325,845	$ 80,522,617	$ 74,719,389	$ 69,396,748	$ 64,535,281	$ 66,363,209	$ 75,569,927	$ 79,349,563
Rate of Return			10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
Assumed Tons (1.155)	1,000,000		$ 11,379,788	$ 10,743,173	$ 10,106,559	$ 9,469,945	$ 8,833,331	$ 8,196,717	$ 7,612,823	$ 7,079,520	$ 7,280,044	$ 8,290,021	$ 8,704,647
86.7500% Cubic yards	867,500		$ 27,051	$ 661,940							$ (1,912,962)		
Operating Expenses			$ 28,601,000	$ 30,979,000	$ 32,837,740	$ 34,808,004	$ 36,896,485	$ 39,110,274	$ 41,456,890	$ 43,944,304	$ 44,668,000	$ 47,348,080	$ 50,188,965
less Gypsum to On-site Landfill			$ (14,389,030)	$ (15,252,372)	$ (16,167,515)	$ (17,137,565)	$ (18,165,819)	$ (19,255,768)	$ (20,411,115)	$ (21,635,781)	$ (22,933,928)	$ (24,309,964)	$ (25,768,562)
Gypsum to Sterling	$ 10.50		$ 15,788,118	$ 16,735,405	$ 17,739,529	$ 18,803,901	$ 19,932,135	$ 21,128,063	$ 22,395,747	$ 23,739,492	$ 25,163,861	$ 26,673,693	$ 28,274,114
Net Operating			$ 30,000,087	$ 32,462,033	$ 34,409,755	$ 36,474,340	$ 38,662,800	$ 40,982,568	$ 43,441,522	$ 46,048,014	$ 46,897,933	$ 49,711,809	$ 52,694,517
Annual Depreciation			$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,184,134	$ 4,212,034	$ 4,435,234	$ 4,881,634	$ 5,188,534
Annual Property Tax Expense			$ 295,558	$ 309,813	$ 314,348	$ 314,348	$ 314,348	$ 339,942	$ 391,776	$ 443,610	$ 466,510	$ 466,510	$ 466,510
Total OE			$ 34,465,830	$ 36,942,030	$ 38,894,287	$ 40,958,872	$ 43,147,333	$ 45,492,694	$ 48,017,432	$ 50,703,658	$ 51,799,676	$ 55,059,952	$ 58,349,561
Total E(m) Gypsum to Sterling		$ 460,435,348	$ 45,845,618	$ 47,685,203	$ 49,000,846	$ 50,428,818	$ 51,980,664	$ 53,689,411	$ 55,630,256	$ 57,783,179	$ 59,079,720	$ 63,349,973	$ 67,054,208
Total E(m) - Project 30 (See below)		$ 547,034,356	$ 54,663,605	$ 56,504,274	$ 57,334,363	$ 58,271,442	$ 61,960,218	$ 68,415,929	$ 74,860,342	$ 78,297,820	$ 77,511,114	$ 78,657,892	$ 79,965,474
Difference	**PVRR** **7.81%**	**$ (86,599,008)**	$ (8,817,987)	$ (8,819,070)	$ (8,333,517)	$ (7,842,625)	$ (9,979,554)	$ (14,726,518)	$ (19,230,086)	$ (20,514,642)	$ (18,431,393)	$ (15,307,918)	$ (12,911,267)
Date			12/31/2020	12/31/2021	12/31/2022	12/31/2023	12/31/2024	12/31/2025	12/31/2026	12/31/2027	12/31/2028	12/31/2029	12/31/2030

Revenue Requirments Summary
2009 Amended Plan
Project 30 Ghent Landfill Phase I
See Exhibit B

		2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
						Start Phase III						
Revenue Requirement		$ 11,000,000	$ 3,500,000			$ 19,750,000	$ 40,000,000	$ 40,000,000	$ 17,671,024			
Eligible Plant		$ 239,078,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 262,328,976	$ 302,328,976	$ 342,328,976	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
Less Gypsum Plant Requirements/Phase Delays		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Revised Eligible Plant		$ 239,078,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 262,328,976	$ 302,328,976	$ 342,328,976	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
Less Accumulated Depreciation		$ (46,706,992)	$ (53,474,945)	$ (60,242,897)	$ (67,010,850)	$ (74,329,828)	$ (82,764,806)	$ (92,315,784)	$ (102,359,783)	$ (112,403,782)	$ (122,447,782)	$ (132,491,781)
Less Deferred Tax Balance		$ (18,290,458)	$ (20,940,788)	$ (23,591,119)	$ (26,241,449)	$ (29,107,561)	$ (32,410,698)	$ (36,150,861)	$ (40,084,091)	$ (44,017,321)	$ (47,950,551)	$ (51,883,781)
Environmental Compliance Rate Base		$ 174,081,526	$ 168,163,243	$ 158,744,960	$ 149,326,677	$ 158,891,587	$ 187,153,472	$ 213,862,331	$ 217,556,126	$ 203,578,896	$ 189,601,667	$ 175,624,438
Rate of Return		10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
		$ 19,096,743	$ 18,447,508	$ 17,414,322	$ 16,381,136	$ 17,430,407	$ 20,530,736	$ 23,460,698	$ 23,865,907	$ 22,332,605	$ 20,799,303	$ 19,266,001
Difference	$ -	$ 27,051	$ 661,940							$ (1,912,962)		
Operating Expenses		$ 28,601,000	$ 30,979,000	$ 32,837,740	$ 34,808,004	$ 36,896,485	$ 39,110,274	$ 41,456,890	$ 43,944,304	$ 44,668,000	$ 47,348,080	$ 50,188,965
less Gypsum to On-site Landfill		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Gypsum to Sterling		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Net Operating		$ 28,601,000	$ 30,979,000	$ 32,837,740	$ 34,808,004	$ 36,896,485	$ 39,110,274	$ 41,456,890	$ 43,944,304	$ 44,668,000	$ 47,348,080	$ 50,188,965
Annual Depreciation		$ 6,670,303	$ 6,767,953	$ 6,767,953	$ 6,767,953	$ 7,318,978	$ 8,434,978	$ 9,550,978	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999
Annual Property Tax Expense		$ 295,558	$ 309,813	$ 314,348	$ 314,348	$ 314,348	$ 339,942	$ 391,776	$ 443,610	$ 466,510	$ 466,510	$ 466,510
Total OE		$ 35,566,861	$ 38,056,766	$ 39,920,041	$ 41,890,306	$ 44,529,811	$ 47,885,193	$ 51,399,644	$ 54,431,913	$ 55,178,509	$ 57,858,589	$ 60,699,474
Total E(m) Gypsum to On-site Landfill as Calculated	547,034,356	$ 54,663,605	$ 56,504,274	$ 57,334,363	$ 58,271,442	$ 61,960,218	$ 68,415,929	$ 74,860,342	$ 78,297,820	$ 77,511,114	$ 78,657,892	$ 79,965,474
Total E(m) Gypsum to On-site Landfill per KU												
Calculation Check Difference												
Site E/F Hauling cost of Ash 2.25 mile round trip		$ 4,244,332	$ 4,498,992	$ 4,768,931	$ 5,055,067	$ 5,358,371	$ 5,679,873	$ 6,020,666	$ 6,381,906	$ 6,764,820	$ 7,170,709	$ 7,600,952
Haul Road Maintenance		$ 80,488	$ 85,317	$ 90,436	$ 95,862	$ 101,614	$ 107,711	$ 114,174	$ 121,024	$ 128,285	$ 135,982	$ 144,141
Total		$ 4,324,820	$ 4,584,309	$ 4,859,367	$ 5,150,929	$ 5,459,985	$ 5,787,584	$ 6,134,839	$ 6,502,930	$ 6,893,105	$ 7,306,692	$ 7,745,093
Reduce by 50% for Site M		$ 2,162,410	$ 2,292,154	$ 2,429,684	$ 2,575,465	$ 2,729,993	$ 2,893,792	$ 3,067,420	$ 3,251,465	$ 3,446,553	$ 3,653,346	$ 3,872,547
Difference	**PVRR** **7.81%** **$ (21,865,903)**											

Revenue Requirments Summary
Gypsum Disposal at Sterling Materials

			2031	2032	2033	2034	2035	2036	2037	
Revenue Requirement			$ 3,500,000							
Eligible Plant			$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	
Less Gypsum Plant Requirements/Phase Delays			$ (170,531,024)	$ (170,531,024)	$ (170,531,024)	$ (170,531,024)	$ (170,531,024)	$ (170,531,024)	$ (170,531,024)	
Revised Eligible Plant			$ 189,468,976	$ 189,468,976	$ 189,468,976	$ 189,468,976	$ 189,468,976	$ 189,468,976	$ 189,468,976	
Less Accumulated Depreciation			$ (81,902,606)	$ (87,188,790)	$ (92,474,974)	$ (97,761,158)	$ (103,047,342)	$ (108,333,526)	$ (113,619,710)	
Less Deferred Tax Balance			$ (32,073,060)	$ (34,143,130)	$ (36,213,200)	$ (38,283,269)	$ (40,353,339)	$ (42,423,409)	$ (44,493,479)	
Environmental Compliance Rate Base			$ 75,493,310	$ 68,137,056	$ 60,780,802	$ 53,424,548	$ 46,068,295	$ 38,712,041	$ 31,355,787	
Rate of Return			10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	
Assumed Tons (1.155)	1,000,000		$ 8,281,616	$ 7,474,635	$ 6,667,654	$ 5,860,673	$ 5,053,692	$ 4,246,711	$ 3,439,730	$ 259,765,660
86.7500% Cubic yards	867,500									
Operating Expenses			$ 53,200,303	$ 56,392,321	$ 59,775,860	$ 63,362,412	$ 67,164,156	$ 71,194,006	$ 75,465,646	
less Gypsum to On-site Landfill			$ (27,314,676)	$ (28,953,556)	$ (30,690,769)	$ (32,532,216)	$ (34,484,149)	$ (36,553,198)	$ (38,746,389)	
Gypsum to Sterling	$ 10.50		$ 29,970,561	$ 31,768,795	$ 33,674,922	$ 35,695,418	$ 37,837,143	$ 40,107,371	$ 42,513,814	
Net Operating			$ 55,856,188	$ 59,207,559	$ 62,760,013	$ 66,525,614	$ 70,517,151	$ 74,748,180	$ 79,233,071	
Annual Depreciation			$ 5,286,184	$ 5,286,184	$ 5,286,184	$ 5,286,184	$ 5,286,184	$ 5,286,184	$ 5,286,184	
Annual Property Tax Expense			$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	
Total OE			$ 61,608,882	$ 64,960,253	$ 68,512,707	$ 72,278,307	$ 76,269,844	$ 80,500,873	$ 84,985,764	
Total E(m) Gypsum to Sterling		$ 460,435,348	$ 69,890,498	$ 72,434,888	$ 75,180,361	$ 78,138,980	$ 81,323,536	$ 84,747,584	$ 88,425,494	$ 1,471,356,097
Total E(m) - Project 30 (See below)		$ 547,034,356	$ 81,443,510	$ 83,102,226	$ 84,952,464	$ 87,005,713	$ 89,274,156	$ 91,770,703	$ 94,509,041	$ 1,731,854,332
Difference PVRR	7.81%	$ (86,599,008)	$ (11,553,012)	$ (10,667,338)	$ (9,772,103)	$ (8,866,733)	$ (7,950,620)	$ (7,023,119)	$ (6,083,547)	**$ (260,498,235)**
Date			12/31/2031	12/31/2032	12/31/2033	12/31/2034	12/31/2035	12/31/2036	12/31/2037	

Revenue Requirments Summary
2009 Amended Plan
Project 30 Ghent Landfill Phase I
See Exhibit B

			2031	2032	2033	2034	2035	2036	2037	
Revenue Requirement										$ 117,421,024
Eligible Plant			$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	
Less Gypsum Plant Requirements/Phase Delays			$ -	$ -	$ -	$ -	$ -	$ -	$ -	
Revised Eligible Plant			$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	
Less Accumulated Depreciation			$ (142,535,780)	$ (152,579,779)	$ (162,623,779)	$ (172,667,778)	$ (182,711,777)	$ (192,755,777)	$ (202,799,776)	
Less Deferred Tax Balance			$ (55,817,012)	$ (59,750,242)	$ (63,683,472)	$ (67,616,702)	$ (71,549,932)	$ (75,483,162)	$ (79,416,392)	
Environmental Compliance Rate Base			$ 161,647,208	$ 147,669,979	$ 133,692,750	$ 119,715,520	$ 105,738,291	$ 91,761,061	$ 77,783,832	
Rate of Return			10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	
			$ 17,732,699	$ 16,199,397	$ 14,666,095	$ 13,132,793	$ 11,599,490	$ 10,066,188	$ 8,532,886	$ 482,133,777
Difference	$ -									
Operating Expenses			$ 53,200,303	$ 56,392,321	$ 59,775,860	$ 63,362,412	$ 67,164,156	$ 71,194,006	$ 75,465,646	
less Gypsum to On-site Landfill			$ -	$ -	$ -	$ -	$ -	$ -	$ -	
Gypsum to Sterling			$ -	$ -	$ -	$ -	$ -	$ -	$ -	
Net Operating			$ 53,200,303	$ 56,392,321	$ 59,775,860	$ 63,362,412	$ 67,164,156	$ 71,194,006	$ 75,465,646	
Annual Depreciation			$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	
Annual Property Tax Expense			$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	
Total OE			$ 63,710,812	$ 66,902,830	$ 70,286,369	$ 73,872,921	$ 77,674,665	$ 81,704,515	$ 85,976,155	$ 1,249,720,555
Total E(m) Gypsum to On-site Landfill as Calculated		547,034,356	$ 81,443,510	$ 83,102,226	$ 84,952,464	$ 87,005,713	$ 89,274,156	$ 91,770,703	$ 94,509,041	$ 1,731,854,332
Total E(m) Gypsum to On-site Landfill per KU										
Calculation Check Difference										
Site E/F Hauling cost of Ash 2.25 mile round trip			$ 8,057,009	$ 8,540,429	$ 9,052,855	$ 9,596,026	$ 10,171,788	$ 10,782,095	$ 11,429,021	
Haul Road Maintenance			$ 153,790	$ 161,957	$ 171,675	$ 181,975	$ 192,894	$ 204,467	$ 216,735	
Total			$ 8,209,799	$ 8,702,387	$ 9,224,530	$ 9,778,002	$ 10,364,682	$ 10,986,563	$ 11,645,756	
Reduce by 50% for Site M			$ 4,104,899	$ 4,351,193	$ 4,612,265	$ 4,889,001	$ 5,182,341	$ 5,493,281	$ 5,822,878	
Difference PVRR	7.81%	$ (21,865,903)								

Revenue Requirments Summary
Gypsum Disposal at Sterling Materials

			2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Revenue Requirement													
Eligible Plant			$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 203,078,976	$ 204,078,976	$ 212,078,976	$ 228,078,976
Less Gypsum Plant Requirements/Phase Delays			$ -	$ (14,090,000)	$ (40,060,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,610,000)	$ (53,610,000)	$ (54,610,000)	$ (62,610,000)	$ (78,610,000)
Revised Eligible Plant			$ 4,321,671	$ 32,388,846	$ 65,425,803	$ 124,467,356	$ 138,023,918	$ 148,831,953	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976
Less Accumulated Depreciation							$ (3,690,414)	$ (7,842,826)	$ (12,013,010)	$ (16,183,194)	$ (20,353,378)	$ (24,523,563)	$ (28,693,747)
Less Deferred Tax Balance							$ (528,683)	$ (2,857,926)	$ (4,921,730)	$ (6,724,117)	$ (8,277,719)	$ (9,603,427)	$ (11,236,471)
Environmental Compliance Rate Base			$ 4,321,671	$ 32,388,846	$ 65,425,803	$ 124,467,356	$ 133,804,821	$ 138,131,202	$ 132,534,236	$ 126,561,665	$ 120,837,879	$ 115,341,986	$ 109,538,758
Rate of Return			11.1%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
Assumed Tons (1.155)	1,000,000		$ 480,509	$ 3,553,056	$ 7,177,211	$ 13,654,069	$ 14,678,389	$ 15,152,993	$ 14,539,006	$ 13,883,815	$ 13,255,915	$ 12,658,016	$ 12,016,402
86.7500% Cubic yards	867,500												
Operating Expenses			$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,556
less Gypsum to On-site Landfill							$ (9,569,527)	$ (10,143,699)	$ (10,752,321)	$ (11,397,460)	$ (12,081,307)	$ (12,806,186)	$ (13,574,557)
Gypsum to Sterling	$ 9.00						$ 9,000,000	$ 9,540,000	$ 10,112,400	$ 10,719,144	$ 11,362,293	$ 12,044,030	$ 12,766,672
Net Operating			$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 18,433,781	$ 19,539,808	$ 20,712,196	$ 21,954,928	$ 23,272,224	$ 24,668,557	$ 26,148,671
Annual Depreciation							$ 3,690,414	$ 4,152,411	$ 4,170,184	$ 4,170,185	$ 4,170,184	$ 4,170,184	$ 4,170,184
Annual Property Tax Expense				$ 6,483	$ 69,718	$ 158,229	$ 266,366	$ 279,017	$ 286,798	$ 279,274	$ 271,517	$ 264,458	$ 274,825
Total OE			$ 84,800	$ 127,832	$ 198,348	$ 294,577	$ 22,390,561	$ 23,971,237	$ 25,169,179	$ 26,404,387	$ 27,713,925	$ 29,103,199	$ 30,593,680
Total E(m) Gypsum to Sterling		$ 437,628,685	$ 565,309	$ 3,680,888	$ 7,375,559	$ 13,948,646	$ 37,068,950	$ 39,124,230	$ 39,708,184	$ 40,288,201	$ 40,969,840	$ 41,756,215	$ 42,610,081
Total E(m) - Project 30 (See below)		$ 547,034,356	$ 565,309	$ 5,226,561	$ 11,770,141	$ 19,774,813	$ 44,706,579	$ 46,601,539	$ 46,978,148	$ 47,430,316	$ 48,060,812	$ 49,736,723	$ 52,508,105
Difference **PVRR**	**7.81%**	**$ (109,405,671)**	$ -	$ (1,545,673)	$ (4,394,582)	$ (5,826,167)	$ (7,637,629)	$ (7,477,309)	$ (7,269,964)	$ (7,142,114)	$ (7,090,972)	$ (7,980,508)	$ (9,898,024)
Date			12/31/2009	12/31/2010	12/31/2011	12/31/2012	12/31/2013	12/31/2014	12/31/2015	12/31/2016	12/31/2017	12/31/2018	12/31/2019

Revenue Requirments Summary
2009 Amended Plan
Project 30 Ghent Landfill Phase I
See Exhibit B

		2009	2010	2011	2012	2013	2014	2015	2016 Start Phase II	2017	2018	2019
Revenue Requirement									$ 500,000	$ 1,000,000	$ 8,000,000	$ 16,000,000
Eligible Plant		$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 203,078,976	$ 204,078,976	$ 212,078,976	$ 228,078,976
Less Gypsum Plant Requirements/Phase Delays		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Revised Eligible Plant		$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 203,078,976	$ 204,078,976	$ 212,078,976	$ 228,078,976
Less Accumulated Depreciation						$ (5,110,443)	$ (10,744,623)	$ (16,396,576)	$ (22,062,480)	$ (27,756,283)	$ (33,673,286)	$ (40,036,689)
Less Deferred Tax Balance						$ (732,114)	$ (3,915,341)	$ (6,717,677)	$ (9,166,960)	$ (11,288,480)	$ (13,186,459)	$ (15,678,367)
Environmental Compliance Rate Base		$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 185,291,361	$ 187,281,989	$ 179,464,723	$ 171,849,536	$ 165,034,213	$ 165,219,232	$ 172,363,920
Rate of Return		11.1%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
		$ 480,509	$ 5,098,729	$ 11,571,793	$ 19,480,236	$ 20,326,462	$ 20,544,834	$ 19,687,280	$ 18,851,894	$ 18,104,253	$ 18,124,550	$ 18,908,322
Difference	$ -											
Operating Expenses		$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,556
less Gypsum to On-site Landfill						$ -	$ -	$ -	$ -	$ -	$ -	$ -
Gypsum to Sterling						$ -	$ -	$ -	$ -	$ -	$ -	$ -
Net Operating		$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,556
Annual Depreciation						$ 5,110,443	$ 5,634,180	$ 5,651,953	$ 5,665,904	$ 5,693,803	$ 5,917,003	$ 6,363,403
Annual Property Tax Expense			$ 6,483	$ 69,718	$ 158,229	$ 266,366	$ 279,017	$ 286,798	$ 279,274	$ 271,517	$ 264,458	$ 274,825
Total OE		$ 84,800	$ 127,832	$ 198,348	$ 294,577	$ 24,380,117	$ 26,056,704	$ 27,290,868	$ 28,578,421	$ 29,956,559	$ 31,612,174	$ 33,594,783
Total E(m) Gypsum to On-site Landfill as Calculated	547,034,356	$ 565,309	$ 5,226,561	$ 11,770,141	$ 19,774,813	$ 44,706,579	$ 46,601,539	$ 46,978,148	$ 47,430,316	$ 48,060,812	$ 49,736,723	$ 52,508,105
Total E(m) Gypsum to On-site Landfill per KU		$ 565,309	$ 5,226,225	$ 11,769,378	$ 19,773,528	$ 44,705,239	$ 46,600,208	$ 46,976,843	$ 47,458,553	$ 48,044,547	$ 48,653,648	
Calculation Check Difference		$ -	$ 336	$ 763	$ 1,285	$ 1,340	$ 1,331	$ 1,305	$ (28,237)	$ 16,265	$ 1,083,075	
Site E/F Hauling cost of Ash 2.25 mile round trip						$ 2,822,723	$ 2,992,086	$ 3,171,612	$ 3,361,908	$ 3,563,623	$ 3,777,440	$ 4,004,087
Haul Road Maintenance						$ 53,529	$ 56,741	$ 60,145	$ 63,754	$ 67,579	$ 71,634	$ 75,932
Total						$ 2,876,252	$ 3,048,827	$ 3,231,757	$ 3,425,662	$ 3,631,202	$ 3,849,074	$ 4,080,018
Reduce by 50% for Site M		$ -	$ -	$ -	$ -	$ 1,438,126	$ 1,524,414	$ 1,615,878	$ 1,712,831	$ 1,815,601	$ 1,924,537	$ 2,040,009
Difference **PVRR**	**7.81%** **$ (21,865,903)**											

Revenue Requirments Summary
Gypsum Disposal at Sterling Materials

			2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
									Start Phase II				
Revenue Requirement									$ 500,000	$ 1,000,000	$ 8,000,000	$ 16,000,000	$ 11,000,000
Eligible Plant			$ 239,078,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 262,328,976	$ 302,328,976	$ 342,328,976	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
Less Gypsum Plant Requirements/Phase Delays			$ (89,610,000)	$ (93,110,000)	$ (93,110,000)	$ (93,110,000)	$ (112,860,000)	$ (152,860,000)	$ (192,360,000)	$ (209,031,024)	$ (201,031,024)	$ (185,031,024)	$ (174,031,024)
Revised Eligible Plant			$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,968,976	$ 150,968,976	$ 158,968,976	$ 174,968,976	$ 185,968,976
Less Accumulated Depreciation			$ (32,863,931)	$ (37,034,115)	$ (41,204,299)	$ (45,374,483)	$ (49,544,667)	$ (53,714,851)	$ (57,898,986)	$ (62,111,020)	$ (65,546,254)	$ (71,427,888)	$ (76,616,422)
Less Deferred Tax Balance			$ (12,869,515)	$ (14,502,559)	$ (16,135,603)	$ (17,768,648)	$ (19,401,692)	$ (21,034,736)	$ (22,673,243)	$ (24,322,675)	$ (26,059,513)	$ (27,971,161)	$ (30,002,991)
Environmental Compliance Rate Base			$ 103,735,530	$ 97,932,302	$ 92,129,073	$ 86,325,845	$ 80,522,617	$ 74,719,389	$ 69,396,748	$ 64,535,281	$ 66,363,209	$ 75,569,927	$ 79,349,563
Rate of Return			10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
Assumed Tons (1.155)	1,000,000		$ 11,379,788	$ 10,743,173	$ 10,106,559	$ 9,469,945	$ 8,833,331	$ 8,196,717	$ 7,612,823	$ 7,079,520	$ 7,280,044	$ 8,290,021	$ 8,704,647
86.7500% Cubic yards	867,500		$ 27,051	$ 661,940							$ (1,912,962)		
Operating Expenses			$ 28,601,000	$ 30,979,000	$ 32,837,740	$ 34,808,004	$ 36,896,485	$ 39,110,274	$ 41,456,890	$ 43,944,304	$ 44,668,000	$ 47,348,080	$ 50,188,965
less Gypsum to On-site Landfill			$ (14,389,030)	$ (15,252,372)	$ (16,167,515)	$ (17,137,565)	$ (18,165,819)	$ (19,255,768)	$ (20,411,115)	$ (21,635,781)	$ (22,933,928)	$ (24,309,964)	$ (25,768,562)
Gypsum to Sterling	$ 9.00		$ 13,532,672	$ 14,344,633	$ 15,205,311	$ 16,117,629	$ 17,084,687	$ 18,109,768	$ 19,196,354	$ 20,348,136	$ 21,569,024	$ 22,863,165	$ 24,234,955
Net Operating			$ 27,744,642	$ 30,071,260	$ 31,875,536	$ 33,788,068	$ 35,815,352	$ 37,964,274	$ 40,242,130	$ 42,656,658	$ 43,303,095	$ 45,901,281	$ 48,655,358
Annual Depreciation			$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,184,134	$ 4,212,034	$ 4,435,234	$ 4,881,634	$ 5,188,534
Annual Property Tax Expense			$ 295,558	$ 309,813	$ 314,348	$ 314,348	$ 314,348	$ 339,942	$ 391,776	$ 443,610	$ 466,510	$ 466,510	$ 466,510
Total OE			$ 32,210,385	$ 34,551,257	$ 36,360,069	$ 38,272,601	$ 40,299,885	$ 42,474,399	$ 44,818,040	$ 47,312,302	$ 48,204,839	$ 51,249,425	$ 54,310,402
Total E(m) Gypsum to Sterling		$ 437,628,685	$ 43,590,172	$ 45,294,431	$ 46,466,628	$ 47,742,546	$ 49,133,216	$ 50,671,116	$ 52,430,863	$ 54,391,823	$ 55,484,883	$ 59,539,446	$ 63,015,049
Total E(m) - Project 30 (See below)		$ 547,034,356	$ 54,663,605	$ 56,504,274	$ 57,334,363	$ 58,271,442	$ 61,960,218	$ 68,415,929	$ 74,860,342	$ 78,297,820	$ 77,511,114	$ 78,657,892	$ 79,965,474
Difference	PVRR 7.81%	$ (109,405,671)	$ (11,073,433)	$ (11,209,843)	$ (10,867,735)	$ (10,528,896)	$ (12,827,002)	$ (17,744,813)	$ (22,429,478)	$ (23,905,998)	$ (22,026,231)	$ (19,118,446)	$ (16,950,426)
Date			12/31/2020	12/31/2021	12/31/2022	12/31/2023	12/31/2024	12/31/2025	12/31/2026	12/31/2027	12/31/2028	12/31/2029	12/31/2030

Revenue Requirments Summary
2009 Amended Plan
Project 30 Ghent Landfill Phase I
See Exhibit B

			2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
							Start Phase III						
Revenue Requirement			$ 11,000,000	$ 3,500,000			$ 19,750,000	$ 40,000,000	$ 40,000,000	$ 17,671,024			
Eligible Plant			$ 239,078,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 262,328,976	$ 302,328,976	$ 342,328,976	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
Less Gypsum Plant Requirements/Phase Delays			$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Revised Eligible Plant			$ 239,078,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 262,328,976	$ 302,328,976	$ 342,328,976	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
Less Accumulated Depreciation			$ (46,706,992)	$ (53,474,945)	$ (60,242,897)	$ (67,010,850)	$ (74,329,828)	$ (82,764,806)	$ (92,315,784)	$ (102,359,783)	$ (112,403,782)	$ (122,447,782)	$ (132,491,781)
Less Deferred Tax Balance			$ (18,290,458)	$ (20,940,788)	$ (23,591,119)	$ (26,241,449)	$ (29,107,561)	$ (32,410,698)	$ (36,150,861)	$ (40,084,091)	$ (44,017,321)	$ (47,950,551)	$ (51,883,781)
Environmental Compliance Rate Base			$ 174,081,526	$ 168,163,243	$ 158,744,960	$ 149,326,677	$ 158,891,587	$ 187,153,472	$ 213,862,331	$ 217,556,126	$ 203,578,896	$ 189,601,667	$ 175,624,438
Rate of Return			10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
			$ 19,096,743	$ 18,447,508	$ 17,414,322	$ 16,381,136	$ 17,430,407	$ 20,530,736	$ 23,460,698	$ 23,865,907	$ 22,332,605	$ 20,799,303	$ 19,266,001
Difference	$ -		$ 27,051	$ 661,940							$ (1,912,962)		
Operating Expenses			$ 28,601,000	$ 30,979,000	$ 32,837,740	$ 34,808,004	$ 36,896,485	$ 39,110,274	$ 41,456,890	$ 43,944,304	$ 44,668,000	$ 47,348,080	$ 50,188,965
less Gypsum to On-site Landfill			$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Gypsum to Sterling			$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Net Operating			$ 28,601,000	$ 30,979,000	$ 32,837,740	$ 34,808,004	$ 36,896,485	$ 39,110,274	$ 41,456,890	$ 43,944,304	$ 44,668,000	$ 47,348,080	$ 50,188,965
Annual Depreciation			$ 6,670,303	$ 6,767,953	$ 6,767,953	$ 6,767,953	$ 7,318,978	$ 8,434,978	$ 9,550,978	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999
Annual Property Tax Expense			$ 295,558	$ 309,813	$ 314,348	$ 314,348	$ 314,348	$ 339,942	$ 391,776	$ 443,610	$ 466,510	$ 466,510	$ 466,510
Total OE			$ 35,566,861	$ 38,056,766	$ 39,920,041	$ 41,890,306	$ 44,529,811	$ 47,885,193	$ 51,399,644	$ 54,431,913	$ 55,178,509	$ 57,858,589	$ 60,699,474
Total E(m) Gypsum to On-site Landfill as Calculated		547,034,356	$ 54,663,605	$ 56,504,274	$ 57,334,363	$ 58,271,442	$ 61,960,218	$ 68,415,929	$ 74,860,342	$ 78,297,820	$ 77,511,114	$ 78,657,892	$ 79,965,474
Total E(m) Gypsum to On-site Landfill per KU													
Calculation Check Difference													
Site E/F Hauling cost of Ash 2.25 mile round trip			$ 4,244,332	$ 4,498,992	$ 4,768,931	$ 5,055,067	$ 5,358,371	$ 5,679,873	$ 6,020,666	$ 6,381,906	$ 6,764,820	$ 7,170,709	$ 7,600,952
Haul Road Maintenance			$ 80,488	$ 85,317	$ 90,436	$ 95,862	$ 101,614	$ 107,711	$ 114,174	$ 121,024	$ 128,285	$ 135,982	$ 144,141
Total			$ 4,324,820	$ 4,584,309	$ 4,859,367	$ 5,150,929	$ 5,459,985	$ 5,787,584	$ 6,134,839	$ 6,502,930	$ 6,893,105	$ 7,306,692	$ 7,745,093
Reduce by 50% for Site M			$ 2,162,410	$ 2,292,154	$ 2,429,684	$ 2,575,465	$ 2,729,993	$ 2,893,792	$ 3,067,420	$ 3,251,465	$ 3,446,553	$ 3,653,346	$ 3,872,547
Difference	PVRR 7.81%	$ (21,865,903)											

Revenue Requirments Summary
Gypsum Disposal at Sterling Materials

			2031	2032	2033	2034	2035	2036	2037	
Revenue Requirement			$ 3,500,000							
Eligible Plant			$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	
Less Gypsum Plant Requirements/Phase Delays			$ (170,531,024)	$ (170,531,024)	$ (170,531,024)	$ (170,531,024)	$ (170,531,024)	$ (170,531,024)	$ (170,531,024)	
Revised Eligible Plant			$ 189,468,976	$ 189,468,976	$ 189,468,976	$ 189,468,976	$ 189,468,976	$ 189,468,976	$ 189,468,976	
Less Accumulated Depreciation			$ (81,902,606)	$ (87,188,790)	$ (92,474,974)	$ (97,761,158)	$ (103,047,342)	$ (108,333,526)	$ (113,619,710)	
Less Deferred Tax Balance			$ (32,073,060)	$ (34,143,130)	$ (36,213,200)	$ (38,283,269)	$ (40,353,339)	$ (42,423,409)	$ (44,493,479)	
Environmental Compliance Rate Base			$ 75,493,310	$ 68,137,056	$ 60,780,802	$ 53,424,548	$ 46,068,295	$ 38,712,041	$ 31,355,787	
Rate of Return			10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	
Assumed Tons (1.155)	1,000,000		$ 8,281,616	$ 7,474,635	$ 6,667,654	$ 5,860,673	$ 5,053,692	$ 4,246,711	$ 3,439,730	$ 259,765,660
86.7500% Cubic yards	867,500									
Operating Expenses			$ 53,200,303	$ 56,392,321	$ 59,775,860	$ 63,362,412	$ 67,164,156	$ 71,194,006	$ 75,465,646	
less Gypsum to On-site Landfill			$ (27,314,676)	$ (28,953,556)	$ (30,690,769)	$ (32,532,216)	$ (34,484,149)	$ (36,553,198)	$ (38,746,389)	
Gypsum to Sterling	$ 9.00		$ 25,689,052	$ 27,230,396	$ 28,864,219	$ 30,596,072	$ 32,431,837	$ 34,377,747	$ 36,440,412	
Net Operating			$ 51,574,679	$ 54,669,160	$ 57,949,310	$ 61,426,268	$ 65,111,845	$ 69,018,555	$ 73,159,669	
Annual Depreciation			$ 5,286,184	$ 5,286,184	$ 5,286,184	$ 5,286,184	$ 5,286,184	$ 5,286,184	$ 5,286,184	
Annual Property Tax Expense			$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	
Total OE			$ 57,327,373	$ 60,421,854	$ 63,702,004	$ 67,178,962	$ 70,864,538	$ 74,771,249	$ 78,912,362	
Total E(m) Gypsum to Sterling		$ 437,628,685	$ 65,608,989	$ 67,896,489	$ 70,369,657	$ 73,039,635	$ 75,918,230	$ 79,017,960	$ 82,352,092	$ 1,389,059,329
Total E(m) - Project 30 (See below)		$ 547,034,356	$ 81,443,510	$ 83,102,226	$ 84,952,464	$ 87,005,713	$ 89,274,156	$ 91,770,703	$ 94,509,041	$ 1,731,854,332
Difference	PVRR	7.81% $ (109,405,671)	$ (15,834,521)	$ (15,205,737)	$ (14,582,806)	$ (13,966,078)	$ (13,355,926)	$ (12,752,743)	$ (12,156,949)	$ (342,795,003)
Date			12/31/2031	12/31/2032	12/31/2033	12/31/2034	12/31/2035	12/31/2036	12/31/2037	

Revenue Requirments Summary
2009 Amended Plan
Project 30 Ghent Landfill Phase I
See Exhibit B

			2031	2032	2033	2034	2035	2036	2037	
Revenue Requirement										$ 117,421,024
Eligible Plant			$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	
Less Gypsum Plant Requirements/Phase Delays			$ -	$ -	$ -	$ -	$ -	$ -	$ -	
Revised Eligible Plant			$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	
Less Accumulated Depreciation			$ (142,535,780)	$ (152,579,779)	$ (162,623,779)	$ (172,667,778)	$ (182,711,777)	$ (192,755,777)	$ (202,799,776)	
Less Deferred Tax Balance			$ (55,817,012)	$ (59,750,242)	$ (63,683,472)	$ (67,616,702)	$ (71,549,932)	$ (75,483,162)	$ (79,416,392)	
Environmental Compliance Rate Base			$ 161,647,208	$ 147,669,979	$ 133,692,750	$ 119,715,520	$ 105,738,291	$ 91,761,061	$ 77,783,832	
Rate of Return			10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	
			$ 17,732,699	$ 16,199,397	$ 14,666,095	$ 13,132,793	$ 11,599,490	$ 10,066,188	$ 8,532,886	$ 482,133,777
Difference	$ -									
Operating Expenses			$ 53,200,303	$ 56,392,321	$ 59,775,860	$ 63,362,412	$ 67,164,156	$ 71,194,006	$ 75,465,646	
less Gypsum to On-site Landfill			$ -	$ -	$ -	$ -	$ -	$ -	$ -	
Gypsum to Sterling			$ -	$ -	$ -	$ -	$ -	$ -	$ -	
Net Operating			$ 53,200,303	$ 56,392,321	$ 59,775,860	$ 63,362,412	$ 67,164,156	$ 71,194,006	$ 75,465,646	
Annual Depreciation			$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	
Annual Property Tax Expense			$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	
Total OE			$ 63,710,812	$ 66,902,830	$ 70,286,369	$ 73,872,921	$ 77,674,665	$ 81,704,515	$ 85,976,155	$ 1,249,720,555
Total E(m) Gypsum to On-site Landfill as Calculated		547,034,356	$ 81,443,510	$ 83,102,226	$ 84,952,464	$ 87,005,713	$ 89,274,156	$ 91,770,703	$ 94,509,041	$ 1,731,854,332
Total E(m) Gypsum to On-site Landfill per KU										
Calculation Check Difference										
Site E/F Hauling cost of Ash 2.25 mile round trip			$ 8,057,009	$ 8,540,429	$ 9,052,855	$ 9,596,026	$ 10,171,788	$ 10,782,095	$ 11,429,021	
Haul Road Maintenance			$ 152,790	$ 161,957	$ 171,675	$ 181,975	$ 192,894	$ 204,467	$ 216,735	
Total			$ 8,209,799	$ 8,702,387	$ 9,224,530	$ 9,778,002	$ 10,364,682	$ 10,986,563	$ 11,645,756	
Reduce by 50% for Site M			$ 4,104,899	$ 4,351,193	$ 4,612,265	$ 4,889,001	$ 5,182,341	$ 5,493,781	$ 5,822,878	
Difference	PVRR	7.81% $ (21,865,903)								

Annual Revenue Requirements - Ghent Landfill - KU Project 30										
	Capital					O&M				Total
	Phase 1	Phase 2	Phase 3	Final Cap	Total	Non-Power	Power	Beneficial Reuse	Total O&M	
12/31/2009	480,509	-	-		480,509		84,800		84,800	565,309
12/31/2010	5,098,729	-	-		5,098,729		127,832		127,832	5,226,561
12/31/2011	11,571,793	-	-		11,571,793		198,348		198,348	11,770,141
12/31/2012	19,480,236	-	-		19,480,236		294,577		294,577	19,774,813
12/31/2013	20,326,462	-	-		20,326,462		24,380,117		24,380,117	44,706,579
12/31/2014	20,544,834	-	-		20,544,834		26,056,704		26,056,704	46,601,539
12/31/2015	19,687,280	-	-		19,687,280		27,290,868		27,290,868	46,978,148
12/31/2016	18,799,210	52,684	-		18,851,894		28,578,421		28,578,421	47,430,316
12/31/2017	17,948,314	155,939	-		18,104,253		29,956,559		29,956,559	48,060,812
12/31/2018	17,131,380	993,170	-		18,124,550		31,612,174		31,612,174	49,736,723
12/31/2019	16,268,561	2,639,761	-		18,908,322		33,594,783		33,594,783	52,503,105
12/31/2020	15,405,743	3,691,001	-		19,096,743		35,566,861		35,566,861	54,663,605
12/31/2021	14,542,924	3,904,584	-		18,447,508		38,056,766		38,056,766	56,504,274
12/31/2022	13,680,105	3,734,217	-		17,414,322		39,920,041		39,920,041	57,334,363
12/31/2023	12,817,286	3,563,850	-		16,381,136		41,890,306		41,890,306	58,271,442
12/31/2024	11,954,467	3,393,483	2,082,456		17,430,407		44,529,811		44,529,811	61,960,218
12/31/2025	11,091,649	3,223,116	6,215,971		20,530,736		47,885,193		47,885,193	68,415,929
12/31/2026	10,228,830	3,052,749	10,179,118		23,460,698		51,399,644		51,399,644	74,860,342
12/31/2027	9,366,011	2,882,383	11,617,513		23,865,907		54,431,913		54,431,913	78,297,820
12/31/2028	8,503,192	2,712,016	11,117,397		22,332,605		55,178,509		55,178,509	77,511,114
12/31/2029	7,640,374	2,541,649	10,617,281		20,799,303		57,858,589		57,858,589	78,657,892
12/31/2030	6,777,555	2,371,282	10,117,164		19,266,001		60,699,474		60,699,474	79,965,474
12/31/2031	5,914,736	2,200,915	9,617,048		17,732,699		63,710,812		63,710,812	81,443,510
12/31/2032	5,051,917	2,030,548	9,116,931		16,199,397		66,902,830		66,902,830	83,102,226
12/31/2033	4,189,098	1,860,181	8,616,815		14,666,095		70,286,369		70,286,369	84,952,464
12/31/2034	3,326,280	1,689,814	8,116,699		13,132,793		73,872,921		73,872,921	87,005,713
12/31/2035	2,463,461	1,519,447	7,616,582		11,599,490		77,674,665		77,674,665	89,274,156
12/31/2036	1,600,642	1,349,080	7,116,466		10,066,188		81,704,515		81,704,515	91,770,703
12/31/2037	737,823	1,178,714	6,616,349		8,532,886		85,976,155		85,976,155	94,509,041
2009 PVRR	153,383,226	14,945,173	24,389,184		192,717,582		354,316,774		354,316,774	547,034,356
Cubic Yards	9,542,500	6,072,500	9,542,500		25,157,500		25,157,500		25,157,500	25,157,500
									$/CY (PVRR)	$ 21.74

Annual Revenue Requirements - Ghent Landfill - KU Project 30 with Beneficial Reuse -Sterling Ventures Mine											
	Capital					O&M				Total
	Phase 1	Phase 2	Phase 3	Final Cap	Total	Non-Power	Power	Beneficial Reuse	Total O&M	
12/31/2009	480,509	-	-		480,509		84,800	-	84,800	565,309
12/31/2010	3,553,056	-	-		3,553,056		127,832	-	127,832	3,680,888
12/31/2011	7,177,211	-	-		7,177,211		198,348	-	198,348	7,375,559
12/31/2012	13,654,069	-	-		13,654,069		294,577	-	294,577	13,948,646
12/31/2013	14,678,389	-	-		14,678,389		24,380,117	(489,556)	23,890,561	38,568,950
12/31/2014	15,152,993	-	-		15,152,993		26,056,704	(495,467)	25,561,237	40,714,230
12/31/2015	14,539,006	-	-		14,539,006		27,290,868	(436,289)	26,854,579	41,393,584
12/31/2016	13,883,815	-	-		13,883,815		28,578,421	(387,511)	28,190,911	42,074,725
12/31/2017	13,255,915	-	-		13,255,915		29,956,559	(348,918)	29,607,640	42,863,556
12/31/2018	12,653,016	-	-		12,653,016		31,612,174	(501,636)	31,110,538	43,763,554
12/31/2019	12,016,402	-	-		12,016,402		33,594,783	(873,325)	32,721,458	44,737,860
12/31/2020	11,379,788	-	-		11,379,788		35,566,861	(1,101,031)	34,465,830	45,845,618
12/31/2021	10,743,173	-	-		10,743,173		38,056,766	(1,114,736)	36,942,030	47,685,203
12/31/2022	10,106,559	-	-		10,106,559		39,920,041	(1,025,754)	38,894,287	49,000,846
12/31/2023	9,469,945	-	-		9,469,945		41,890,306	(931,433)	40,958,872	50,428,818
12/31/2024	8,833,331	-	-		8,833,331		44,529,811	(1,382,478)	43,147,333	51,980,664
12/31/2025	8,196,717	-	-		8,196,717		47,885,193	(2,392,499)	45,492,694	53,689,411
12/31/2026	7,560,103	52,720	-		7,612,823		51,399,644	(3,382,211)	48,017,432	55,630,256
12/31/2027	6,923,489	156,032	-		7,079,520		54,431,913	(3,728,255)	50,703,658	57,783,179
12/31/2028	6,286,875	993,170	-		7,280,044		55,178,509	(3,378,832)	51,799,676	59,079,720
12/31/2029	5,650,260	2,639,761	-		8,290,021		57,858,589	(2,798,637)	55,059,952	63,349,973
12/31/2030	5,013,646	3,691,001	-		8,704,647		60,699,474	(2,349,913)	58,349,561	67,054,208
12/31/2031	4,377,032	3,904,584	-		8,281,616		63,710,812	(2,101,930)	61,608,882	69,890,498
12/31/2032	3,740,418	3,734,217	-		7,474,635		66,902,830	(1,942,577)	64,960,253	72,434,888
12/31/2033	3,103,804	3,563,850	-		6,667,654		70,286,369	(1,773,662)	68,512,707	75,180,361
12/31/2034	2,467,190	3,393,483	-		5,860,673		73,872,921	(1,594,613)	72,278,307	78,138,980
12/31/2035	1,830,576	3,223,116	-		5,053,692		77,674,665	(1,404,821)	76,269,844	81,323,536
12/31/2036	1,193,961	3,052,749	-		4,246,711		81,704,515	(1,203,641)	80,500,873	84,747,584
12/31/2037	557,347	2,882,383	-		3,439,730		85,976,155	(990,391)	84,985,764	88,425,494
2009 PVRR	111,212,472	5,355,077	-		116,567,550		354,316,774	(10,448,976)	343,867,798	460,435,348
Cubic Yards	17,350,000	7,807,500			25,157,500		25,157,500		25,157,500	25,157,500
									$/CY (PVRR)	$ 18.30

CASE	Option 30	Option 30 with Beneficial Reuse
PVRR		
Capital	$ 192,717,582	$ 116,567,550
O&M	354,316,774	343,867,798
Total	$ 547,034,356	$ 460,435,348
Delta to Least Cost	$ 86,599,008	Least Cost
Unit Cost (2009 PVRR $/CY)	$ 21.74	$ 18.30

NOTE-This Table Requires $9.00 Price Inserted Into cell D16 of PVRR Analysis

Annual Revenue Requirements - Ghent Landfill - KU Project 30 with Beneficial Reuse -Sterling Ventures Mine With Scrubber Stone Backhaul

	Capital					O&M				Total
	Phase 1	Phase 2	Phase 3	Final Cap	Total	Non-Power	Power	Beneficial Reuse	Total O&M	
12/31/2009	480,509	-	-		480,509		84,800	-	84,800	565,309
12/31/2010	3,553,056	-	-		3,553,056		127,832	-	127,832	3,680,888
12/31/2011	7,177,211	-	-		7,177,211		198,348	-	198,348	7,375,559
12/31/2012	13,654,069	-	-		13,654,069		294,577	-	294,577	13,948,646
12/31/2013	14,678,389	-	-		14,678,389		24,380,117	(1,989,556)	22,390,561	37,068,950
12/31/2014	15,152,993	-	-		15,152,993		26,056,704	(2,085,467)	23,971,237	39,124,230
12/31/2015	14,539,006	-	-		14,539,006		27,290,868	(2,121,689)	25,169,179	39,708,184
12/31/2016	13,883,815	-	-		13,883,815		28,578,421	(2,174,035)	26,404,387	40,288,201
12/31/2017	13,255,915	-	-		13,255,915		29,956,559	(2,242,634)	27,713,925	40,969,840
12/31/2018	12,653,016	-	-		12,653,016		31,612,174	(2,508,974)	29,103,199	41,756,215
12/31/2019	12,016,402	-	-		12,016,402		33,594,783	(3,001,104)	30,593,680	42,610,081
12/31/2020	11,379,788	-	-		11,379,788		35,566,861	(3,356,477)	32,210,385	43,590,172
12/31/2021	10,743,173	-	-		10,743,173		38,056,766	(3,505,508)	34,551,257	45,294,431
12/31/2022	10,106,559	-	-		10,106,559		39,920,041	(3,559,973)	36,360,069	46,466,628
12/31/2023	9,469,945	-	-		9,469,945		41,890,306	(3,617,705)	38,272,601	47,742,546
12/31/2024	8,833,331	-	-		8,833,331		44,529,811	(4,229,926)	40,299,885	49,133,216
12/31/2025	8,196,717	-	-		8,196,717		47,885,193	(5,410,794)	42,474,399	50,671,116
12/31/2026	7,560,103	52,720	-		7,612,823		51,399,644	(6,581,604)	44,818,040	52,430,863
12/31/2027	6,923,489	156,032	-		7,079,520		54,431,913	(7,119,611)	47,312,302	54,391,823
12/31/2028	6,286,875	993,170	-		7,280,044		55,178,509	(6,973,670)	48,204,839	55,484,883
12/31/2029	5,650,260	2,639,761	-		8,290,021		57,858,589	(6,609,164)	51,249,425	59,539,446
12/31/2030	5,013,646	3,691,001	-		8,704,647		60,699,474	(6,389,072)	54,310,402	63,015,049
12/31/2031	4,377,032	3,904,584	-		8,281,616		63,710,812	(6,383,438)	57,327,373	65,608,989
12/31/2032	3,740,418	3,734,217	-		7,474,635		66,902,830	(6,480,976)	60,421,854	67,896,489
12/31/2033	3,103,804	3,563,850	-		6,667,654		70,286,369	(6,584,365)	63,702,004	70,369,657
12/31/2034	2,467,190	3,393,483	-		5,860,673		73,872,921	(6,693,958)	67,178,962	73,039,635
12/31/2035	1,830,576	3,223,116	-		5,053,692		77,674,665	(6,810,127)	70,864,538	75,918,230
12/31/2036	1,193,961	3,052,749	-		4,246,711		81,704,515	(6,933,266)	74,771,249	79,017,960
12/31/2037	557,347	2,882,383	-		3,439,730		85,976,155	(7,063,793)	78,912,362	82,352,092
2009 PVRR	111,212,472	5,355,077	-		116,567,550		354,316,774	(33,255,638)	321,061,136	437,628,685
Cubic Yards	17,350,000	7,807,500			25,157,500		25,157,500		25,157,500	25,157,500
									$/CY (PVRR)	$ 17.40

CASE	Option 30	Option 30 with Beneficial Reuse
PVRR		
Capital	$ 192,717,582	$ 116,567,550
O&M	354,316,774	321,061,136
Total	$ 547,034,356	$ 437,628,685
Delta to Least Cost	$ **109,405,671**	Least Cost
Unit Cost (2009 PVRR $/CY)	$ 21.74	$ 17.40

From: Bowling, Ralph(/O=LGE/OU=LOUISVILLE/CN=RECIPIENTS/CN=WEB/CN=RALPHBOWLING)
To: Thompson, Paul
CC: Karavayev, Louanne
BCC:
Subject: Generation Bi Weekly March 5, 2012.docx
Sent: 03/05/2012 01:11:14 PM -0500 (EST)
Attachments: Generation Bi Weekly March 5, 2012.docx;

<<Generation Bi Weekly March 5, 2012.docx>>

Power Generation
Bi-Weekly Update
March 5, 2012

Key Points

Redacted as unresponsive

- Allison Sturgeon, JNV and I will be meeting with representatives from Sterling Ventures on Wed. with respect to their proposal for disposing of gypsum from Ghent at their mine site. They have contacted David Brown to represent them and he will be at the meeting. Their proposal has and continues to be more expensive than the future cost of landfill air space. They have inferred going to the PSC to pitch their proposal, legal is fully engaged.

Redacted as unresponsive

Prepared by: DRB

Prepared by: DRB

From: Bowling, Ralph(/O=LGE/OU=LOUISVILLE/CN=RECIPIENTS/CN=WEB/CN=RALPHBOWLING)
To: Lewis, Donna
CC:
BCC:
Subject: FW: Sterling Venture proposals and pertinent e-mails
Sent: 03/05/2012 12:46:21 PM -0500 (EST)
Attachments: Ghent.msg; Gypsum Disposal.msg; Ghent Gyspum Disposal.msg; RE_ Ghent Gyspum Disposal.msg;

Donna,

Please print these out for a folder on Sterling Ventures

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From: Tapp Sr., Kenny (Electric)
Sent: Monday, March 05, 2012 12:06 PM
To: Bowling, Ralph; Voyles, John; Schram, Chuck
Subject: Sterling Venture proposals and pertinent e-mails

<<Ghent>> <<Gypsum Disposal>> <<Ghent Gyspum Disposal>> <<RE: Ghent Gyspum Disposal>>

Kenny Tapp

LG&E and KU Services Company
220 West Main Street
Louisville, KY 40202
502-627-3154 Office
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502-648-4374 Mobile

From: John Walters(johnwalters@sterlingventures.com)
To: Smith, Timothy (Fuels); Joyce, Jeff; Pfeiffer, Caryl; Tapp Sr., Kenny (Electric); Gilbert, Bill G.; Dotson, Mike; Puckett, Paul
CC: Alex Boone
BCC:
Subject: Ghent Gyspum Disposal
Sent: 09/13/2011 05:15:04 PM -0400 (EDT)
Attachments: LGE - KU Sterling Materials.pdf;

Please see attached

John W. Walters, Jr.
Sterling Ventures, LLC
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STERLING
VENTURES

September 13, 2011

Mr. Jeff Joyce
Mr. Timothy Smith
LG&E and KU-Ghent Station
9485 HWY 42 East
Ghent, KY 41045

Ms. Caryl Pfeiffer VIA E-mail
Mr. Kenny Tapp
Mr. Mike Dotson
Mr. Bill Gilbert
Mr. Paul Puckett
LG&E and KU
220 West Main Street
P.O. Box 32010
Louisville, KY 40202

Re: FGD Gypsum Disposal - Ghent Generating Station

Dear Ms. Pfeiffer and Gentlemen:

We have recently met with Tim Smith at Ghent Station to renew discussions concerning the possibility of Sterling Materials disposing of excess FGD Gypsum from the gypsum stacking facility at the Ghent Generating Station. We were unable to reach an agreement last year on gypsum disposal, presumably based on our proposed pricing.

Our pricing was in part based upon a requirement for a minimum tonnage of gypsum in order to cover the cost of Sterling having to install a gypsum access shaft to access our underground mine. The gypsum access shaft is preferable to trucking the gypsum underground, which we considered cost prohibitive. We proposed to Tim that if Ghent was interested in paying for the cost of the gypsum access shaft (which we estimated to be approximately $650,000) we would be willing to enter into an agreement that would give Ghent the right to dispose of its stacking pond gypsum in Sterling's mine. LGE/KU would be responsible for all loading and trucking fees. Sterling's charge in this scenario would be $5.50 per ton, subject to the terms of a final agreement. The $5.50 would be reduced by $1.00 for a period of 18 months in order to encourage early gypsum disposal, and allow you to recoup the cost of the gypsum access shaft.

As we discussed last year, Sterling is interested in not only handling the initial 1,500,000 tons of gypsum from the stacking facility, but also in receiving 100% of Ghent's excess FGD

gypsum for the life of the power plant. Attached is a comparative analysis of the PVRR cost difference between your current plan of placing all CCP's in a new landfill, and placing all gypsum at Sterling, with only ash going into your new landfill. The attached comparative analysis is based upon the capital construction cost and O&M cost you provided to the Kentucky Public Service Commission. Our attached analysis indicates that disposal of gypsum at Sterling could be the least cost PVRR alternative by at least $79,000,000, and possibly over $100,000,000 if scrubber limestone is purchased from Sterling and backhauled to the plant.

Obviously, we have necessarily made some assumptions in the attached comparative analysis, and we would like to meet with you again to discuss our analysis and assumptions, and to answer any questions you may have. We believe there are significant savings to you and your customers as reflected in the attached.

In addition, as we have previously discussed, we also have an underground limestone mine in Jessamine County near E.W. Brown. We met last week with Ron Gruzesky at The Kentucky Division of Solid Waste, and, based on that meeting, are planning to submit an application to permit our Jessamine County mine as a special waste landfill to receive all CCPs. Hopefully, there is the possibility of significant savings to you at Brown as well.

When you have a chance, give me or John Walters a call and we can discuss the above, and plan and how to move forward.

Sincerely,

Samuel A.B. Boone

GHENT STATION ALTERNATIVE FOR CCP/GYPSUM DISPOSAL

Background

Sterling Materials is an active underground limestone mine located in Verona, Kentucky, approximately 20 miles from Kentucky Utilities Company's Ghent Station. Sterling currently mines between 1,000,000 and 1,600,000 tons of limestone per year, and has been in operation since 2000.

In addition to producing limestone for the general aggregate construction market, Sterling also mines high calcium limestone for Mississippi Lime Company for use in Mississippi Lime's kiln located on Sterling's property. This high calcium limestone is also suitable for use as scrubber stone in Ghent's limestone FGD scrubber system.

In November 2010, Sterling obtained a Special Waste Permit from the Kentucky Department of Environmental Protection, Division of Waste Management allowing disposal of FGD gypsum in Sterling's mine.

KU has proposed building a new landfill at Ghent in three phases for an estimated total cost of $360,000,000 to handle the plant's three coal combustion by-products ("CCPs") through 2037[1]. KU forecasted the following wet storage CCP production volumes for Ghent Station (Cubic Yards):

Year	Fly Ash	Bottom Ash	Gypsum
2009	540,000	140,000	880,000
2010	550,000	150,000	1,090,000
2011	580,000	150,000	1,120,000
2012	550,000	150,000	1,060,000
2013	550,000	150,000	1,090,000

Source: Coal Combustion Byproduct Plan for Ghent Station dated June 2009 (the "Ghent CCP Plan" attached as Exhibit A)

Ghent's FGD gypsum is currently placed in a wet gypsum stacking pond. Ghent also has a contract to supply CertainTeed, Inc. with gypsum, and KU has estimated that CertainTeed will purchase approximately 222,000 cubic yards per year of gypsum from Ghent. As a result, Ghent will be required to continue diverting a portion of its gypsum production to the gypsum stacking pond.

The Ghent CCP Plan outlines KU's comparative analysis of the various alternatives to reach the least cost PVRR of disposing of Ghent's CCPs. One of the alternatives considered was off-site disposal at Valley View Landfill near Sulfer, Kentucky, approximately 25 miles from Ghent Station.[2] Disposal at Valley View was however dismissed because of the high cost of loading, hauling and landfill tipping fees.[3] Although, KU has redacted from public view the cost associated with the Valley View disposal alternative, based on

[1] Phase I cost thru 2018 of $203,969,979 as set forth in Revenue Requirement Summary for Project 30 – Ghent Landfill Phase I attached as Exhibit B. Total project capital cost estimated to be $360,000,000 per direct testimony of John Voyles before the Kentucky Public Service Commission in Case No. 2009-00197 attached as Exhibit C.
[2] Ghent CCP Plan, footnote 14, page 10.
[3] Supra at page 19.

other information contained in information provided to the KY PSC, it is estimated that the projected cost for disposal at Valley View in 2009 was approximately $29.65 per ton.[4]

Alternative Proposal for Gypsum Disposal at Sterling Materials' Mine

Sterling Materials is proposing that Ghent send all of its gypsum production (net of sales CertainTeed) to Sterling mine for disposal, with Ghent's ash being disposed of in either the new landfill as proposed on Site E/F, or in a new landfill located at Site M as considered by Case 14/28 in the Ghent CCP Plan (See page 18-19). Sterling estimates that the PVRR cost of this alternative is at least $79,000,000 less than KU's proposal for a new landfill at Site E/F, as set forth in Exhibit D.

Assumptions in Exhibit D analysis

1. Total price for loading, hauling and fees to Sterling Materials of $10.95 in 2013.
2. Net CCP production of approximately 868,000 cubic yards (1,090,000 – 222,000 to CertainTeed).
3. Cubic yards to ton conversion factor – cy x 1.155 (based on Trans Ash conversion assumption of 1.3 MCY equals 1.5 million tons as hauled - see page 10 of Ghent CCP Plan).
4. Reduce Phase I construction cost by $53,110,000[5] by continuing to place gypsum temporarily in existing gypsum stacking pond until shipment to Sterling.
   - Dry Gypsum Handling System $36,800,000
   - Gypsum Fines Project $12,600,000
   - Gypsum Dewatering Facility Earthwork $ 3,710,000
5. Phase III landfill construction cost eliminated. Phase II construction delayed from 2018 to 2030.
   - Phase I capacity – 14.7 MCY (See Ghent CCP Plan page 12)
   - Ash Production – 700,000 MCY (See Ghent CCP Plan page 7)
   - Phase I life until full – 21 years
6. Total Phase II and III construction costs - $156,030,021 (see Footnote 1)
   - Phase II construction cost - $80,000,000
   - Phase III construction cost - $76,030,021
7. Eliminate following Ghent Landfill Operating Expenses (See Ghent Landfill Operating Expenses - Phase I attached as Exhibit F)
   - Dry Gypsum Handling System
   - Hauling Gypsum to Landfill
     - Loading
     - Phase I-2.25 mile round trip
     - Landfilling Gypsum
8. Continue 2018 Annual Depreciation Rate of 2.7899% on Eligible Capital through 2037
9. Continue 2018 Property Tax Expense Rate of .1259% on Eligible Capital through 2037
10. Apply KU O&M Escalation Rate of 6% (See Ghent CCP Plan page 22)

[4] Total beneficial reuse cost of approximately $8,900,000 for 1,500,000 tons of Gypsum to Trans Ash, Inc. equals $5.93/ton (See Comprehensive Strategy for Management of Coal Combustion Byproducts – June 2009), which is almost 80% less than per unit volume basis than disposal at Valley View. (Ghent CCP Plan at pages 18 and 20).
[5] See Ghent Landfill Capital Expenditures Phase I attached as Exhibit E.

Purchase of Scrubber Stone from Sterling

Sterling Materials mines a high calcium seam of limestone in its 2nd and 3rd levels that will meet, and possibly exceed, Ghent's calcium specifications for scrubber stone. Based on general industry knowledge, without verification, it is believed that Ghent's current cost of scrubber stone FOB plant is approximately $8.00.

The proposed price of 10.50 for gypsum disposal at Sterling includes $4.50 per ton for transportation, based upon an assumed round trip turn of 1.5 hours, and $75.00 per hour to haul 25 tons.

Sterling is proposing to sell high calcium limestone to Ghent for $6.50 per ton and backhauling the stone to Ghent. If a $1.50 per ton trucking fee is assigned to the transportation of the limestone, Ghent will incur no additional cost for it scrubber stone. However, reducing the transportation component of the gypsum disposal cost by $1.50 reduces the proposed disposal cost from $10.50 to $9.00 per ton, and correspondingly increases the PVRR saving advantage from approximately $79,000,000 to over $100,000,000. (See Exhibit G).

Construct Ash Storage Pond at Site M

Although KU has redacted from public view information provided to the Kentucky PSC on the cost associated with an ash landfill on Site M, it would generally appear that using Site M as an ash landfill verses Site E/F would substantially reduce ash disposal cost and further increase the PVRR saving from disposing all of Ghent's gypsum at Sterling.

Site M is substantially closer to Ghent than Site E/F (Ghent CCP Plan page 12 and Exhibit H). The estimated cost of hauling fly and bottom ash to Site E/F is $2,822,723 in 2013, and the corresponding haul Road maintenance cost is $53,529. Even reducing those costs by a modest 50% for the haul to Site M verses site E/F would produce another $21,800,000 in PVRR savings compared to CCP disposal at Ghent under Project 30.

EXHIBIT A

Coal Combustion Byproduct Plan for Ghent Station For

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Subsidiaries Kentucky Utilities and Louisville Gas and Electric

June 2009

CONFIDENTIAL INFORMATION REDACTED

1. Executive Summary

Kentucky Utilities Company's ("KU") Ghent station ("Ghent") produces three primary coal combustion byproducts ("CCP"): bottom ash, fly ash and gypsum, which are currently stored in two ash treatment basins and two gypsum stacking areas. These storage areas are expected to reach full capacity in 2012, creating a need for additional CCP management solutions.

A variety of on-site and off-site options were considered to meet CCP management needs at Ghent. The most effective solutions were identified through a needs analysis and economic analysis based on engineering cost estimates.

To address the pre-2013 need for gypsum storage capacity, an opportunity to remove a quantity of gypsum to be beneficially reused as structural fill was identified. This reuse option is significantly lower cost than transporting CCP to an off-site landfill, which is the other short-term option.

For longer-term CCP storage needs, KU contracted an engineering consultant to develop potential on-site storage alternatives. Of multiple options considered, four options were selected for further economic evaluation. Based on cost estimates and qualitative factors for these alternatives, the most favorable option is a single on-site landfill to store both ash and gypsum.

The most cost effective and environmentally sound CCP management options for Ghent are:

- a proposal for beneficial reuse of 1.3 million cubic yards ("MCY") of CCP (approximately 75% of annual CCP production) by Trans Ash, Inc. in 2010-2012 (Present value of revenue requirement ("PVRR") of [redacted] million or [redacted] per cubic yard), and
- the construction of a new on-site landfill system to store both ash and gypsum production for 25 years to be in-service by 2013 (PVRR of [redacted] million or [redacted] per cubic yard).

In addition, KU will continue to pursue other beneficial reuse opportunities that result in lower disposal costs.

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2. Background

Kentucky Utilities Company's ("KU's") Ghent generating station ("Ghent") is located in Carroll and Gallatin Counties, Kentucky and is comprised of four coal-fired generating units for a total net station capacity of over 1,900 MW. The station produces three primary coal combustion byproducts ("CCP"): bottom ash, fly ash and gypsum. The Ghent station has four existing on-site storage facilities for CCP as follows:

- Ash Treatment Basin ("ATB") #1
- ATB #2
- North Gypsum Stack
- South Gypsum Stack

The ATBs are used to store bottom ash and fly ash which are byproducts of burning coal. ATB #1 is at maximum capacity[1] and ATB #2 is nearing maximum desired capacity. As of February 2009[2], ATB #2 can hold approximately an additional 2.5 MCY of ash. Ghent is forecast to produce approximately 0.7 MCY of ash annually, thus depleting the capacity in ATB #2 in 2012.[3]

Gypsum is produced by Ghent's flue gas desulfurization ("FGD") systems, which use limestone reagent to remove sulfur dioxide from flue gas. Until an additional repository can be developed, Ghent's gypsum is stacked on site. Based on the plant's expected generation, the existing capacity of the north and south gypsum stacks (collectively the "gypsum stack") is expected to be exhausted in 2012.[4]

Some gypsum is currently sold to a third party for beneficial reuse.[5] CertainTeed, Inc. ("CertainTeed") currently pays KU [redacted] per cubic yard for gypsum to be used as a raw material in the production of wallboard. This contract began in 1999 and runs through 2024. CertainTeed does not have minimum or maximum volume obligations, but their expected annual volume is approximately 222,000 cubic yards of gypsum (approximately 20% of annual gypsum production) based on recent utilization data.[6]

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[1] ATB #1 is not relevant to this analysis as it is not currently receiving any CCP, although it is available for emergency use.

[2] A bathymetric survey of ATB #2 was conducted by HDR/Quest/Rudy for GAI Consultants in February 2009.

[3] The available capacity of ATB #2 at the end of June 2009 is forecasted to be approximately 2.3 MCY.

[4] The available capacity of the gypsum stack at the end of June 2009 is forecasted to be approximately 2.6 MCY.

[5] KU identifies economically and environmentally favorable options to beneficially reuse CCP, consistent with KU's Comprehensive Strategy for Management of CCP shown in Exhibit JNV-3.

[6] Gypsum sales to CertainTeed were 263,000 tons in 2007, 375,000 tons in 2008, and 103,000 tons year-to-date through May 2009. However, their purchases decreased late in 2008 and year-to-date in 2009 as the economy slowed.

3. Process and Methodology

KU and Louisville Gas and Electric Company (collectively "the Companies") develop the most effective plan for meeting the CCP storage needs at each generating station. The process of identifying the plan consists of the three following primary tasks which are performed by several departments within the Companies.

- Needs assessment
- Development of alternatives
- Comparison of alternatives

The CCP storage needs are defined by forecasting the production of CCP over the applicable planning period as compared to the existing storage capacity. The Project Engineering department and the applicable generating station are responsible for providing an estimate of remaining capacity.

The expected life of the existing storage capacity is based on the forecast of CCP production, which is developed by Generation Planning for all stations as a function of the expected coal usage for each unit. The Companies compile information regarding the cost of generation for each unit (fuel, variable O&M, emission costs, etc.), a description of the generation capabilities of each unit (capacity, heat rate curve, commitment parameters, emission rates, availability schedules, etc.), a load forecast, the market price of electricity, and the volumetric ability (transfer capability) to access the market. All of this information is brought together in the PROSYM™[7] software, which is used to model the economic operation of the Companies' generating system. The projected coal usage data provided by this model is checked for reasonableness by comparing the results to historical data.

The Project Engineering department develops alternatives for on-site CCP storage solutions and their associated costs. Any alternatives for off-site disposal such as beneficial reuse or off-site landfill disposal are provided by the generating stations' staff and a CCP team focused on exploring alternatives for byproduct storage. The cash flows for selected options are summarized and provided to Generation Planning for evaluation.

The Generation Planning department evaluates the storage and disposal options received from Project Engineering to determine the present value of revenue requirements ("PVRR") associated with the capital expenditures and O&M expenses of each option. This analysis is performed using the Capital Expenditure Recovery module of the Strategist®[8] software model.

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[7] The PROSYM™ model has formed the foundation of prior analyses involving certificates of convenience and necessity for new generating plants, environmental cost recovery for pollution control equipment, and the fuel adjustment clause.

[8] Strategist® is a proprietary, state-of-the-art resource planning computer model. The Capital Expenditure Recovery module is used to quantify the revenue requirements impact associated with capital projects.

4. Needs Assessment

The following capacities were provided by Project Engineering and the Ghent station:

- ATB #1 is at capacity and is available for emergency use only.
- As of February 2009, the remaining available capacity of ATB #2 is 2.5 million cubic yards.[9]
- The remaining available capacity of the gypsum stacks is estimated to be 2.9 MCY as of January 2009.[10]

The expected life of the remaining capacity of the ATB #2 and the Gypsum Stack were estimated by forecasting the CCP production of ash and gypsum at Ghent. The quantity of ash produced at Ghent is estimated at a coal specification of 11.5% ash by weight of the total quantity of coal used, or approximately 11.5 tons of ash per 100 tons of coal. Converting to volumetric measurement, assuming ash production consists of 80% fly ash and 20% bottom ash by weight, approximately 11.5 cubic yards of total ash is produced per 100 tons of coal.[11]

The chemical reaction by which gypsum is produced results in a net gypsum production of approximately 18% by weight of the total quantity of coal used,[12] or approximately 18 tons of gypsum per 100 tons of coal. Converting to volumetric measurement for the gypsum stack, approximately 17.8 cubic yards of gypsum is produced per 100 tons of coal.

The forecasted CCP production volume for Ghent is shown in Table 1 and depicted graphically in Figure 1 and Figure 2, based on the forecasted coal burn shown in Table 2. Table 2 also contains the historical quantities of coal burned as a comparison to the forecast. The increase in coal burn during the 2010-2013 period is due to the completion of the FGD installations at Ghent in 2009, which required prior scheduled outages on each of the Ghent units during 2007-2009. Also, with the addition of the FGDs, Ghent has lower fuel costs, resulting in higher forecasted generation.

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[9] Based on expected coal burn, Generation Planning forecasts that by the end of 2009, the remaining capacity of ATB #2 will be 1.9 MCY.

[10] Based on expected coal burn and existing beneficial reuse, Generation Planning forecasts that by the end of 2009, the remaining capacity of the gypsum stacks will be 2.2 MCY.

[11] Density assumptions for wet storage are 0.945 tons per cubic yard for bottom ash and 1.0125 tons per cubic yard for both fly ash and gypsum.

[12] Fuel specification assumptions include SO_2 content of approximately 5.9 lb/mmBTU and heat content of 22.16 mmBTU/ton.

Table 1: CCP Production Forecast (MCY)

CCP Production Forecast *(MCY – wet storage)*			
	Fly Ash	**Bottom Ash**	**Gypsum**
2009	0.54	0.14	0.88
2010	0.55	0.15	1.09
2011	0.58	0.15	1.12
2012	0.55	0.15	1.06
2013	0.55	0.15	1.09

Table 2: Ghent Coal Usage (Million Tons)

Ghent Coal Usage *(M Tons)*	
Historical	
2004	5.4
2005	5.6
2006	5.6
2007	5.3
2008	5.7
Forecast	
2009	5.6
2010	6.0
2011	6.3
2012	6.1
2013	6.1

The forecasted generation and the resulting coal usage at Ghent correspond to an average capacity factor of approximately 77%. This relatively high capacity factor is consistent with Ghent's low production cost. Since Ghent is already modeled as a baseload station, the risk of significantly underestimating CCP production is low. However, reduction in load or unexpected outages at Ghent could affect the capacity factor and lower future CCP production.

Figures 1 and 2 show the forecasted cumulative CCP production at the end of each year compared to the expected available capacity at the end of 2009. With current forecasts for ash production and without any additional on-site capacity or off-site storage or reuse, ATB #2 is expected to reach full capacity during 2012, as shown in Figure 1. Assuming no beneficial reuse beyond the expected 222,000 cubic yards per year by CertainTeed, the gypsum stack is also expected to reach maximum capacity in 2012, as shown in Figure 2.

Figure 1: ATB #2 Capacity

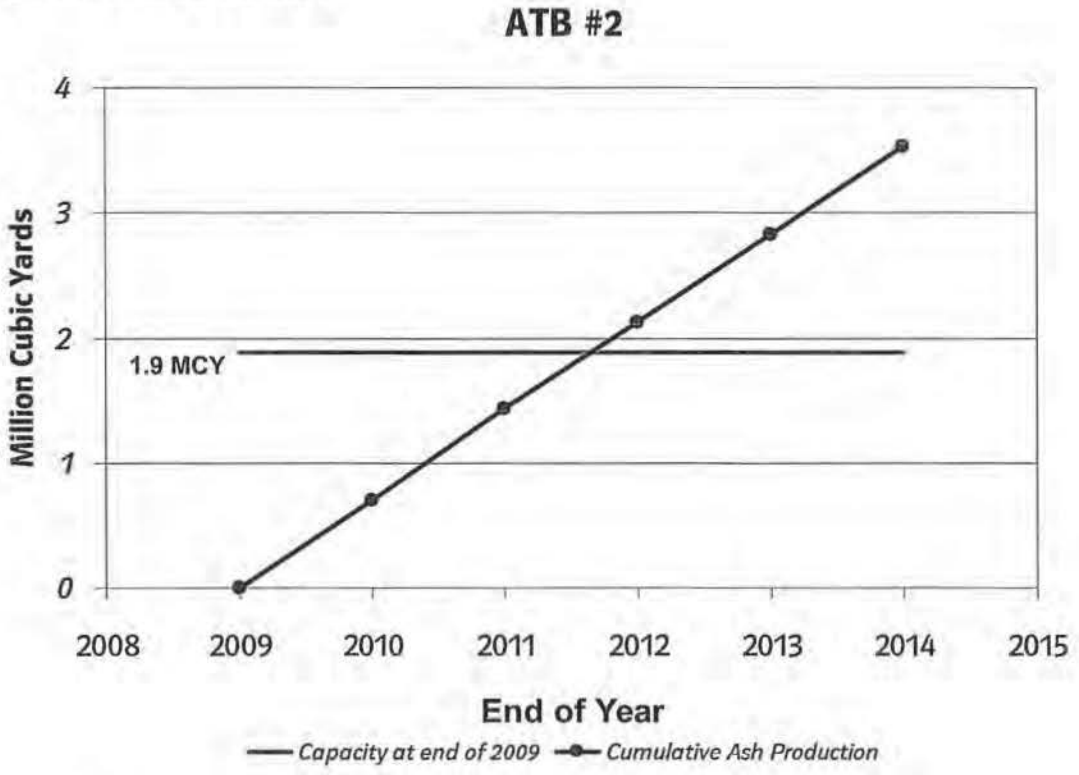
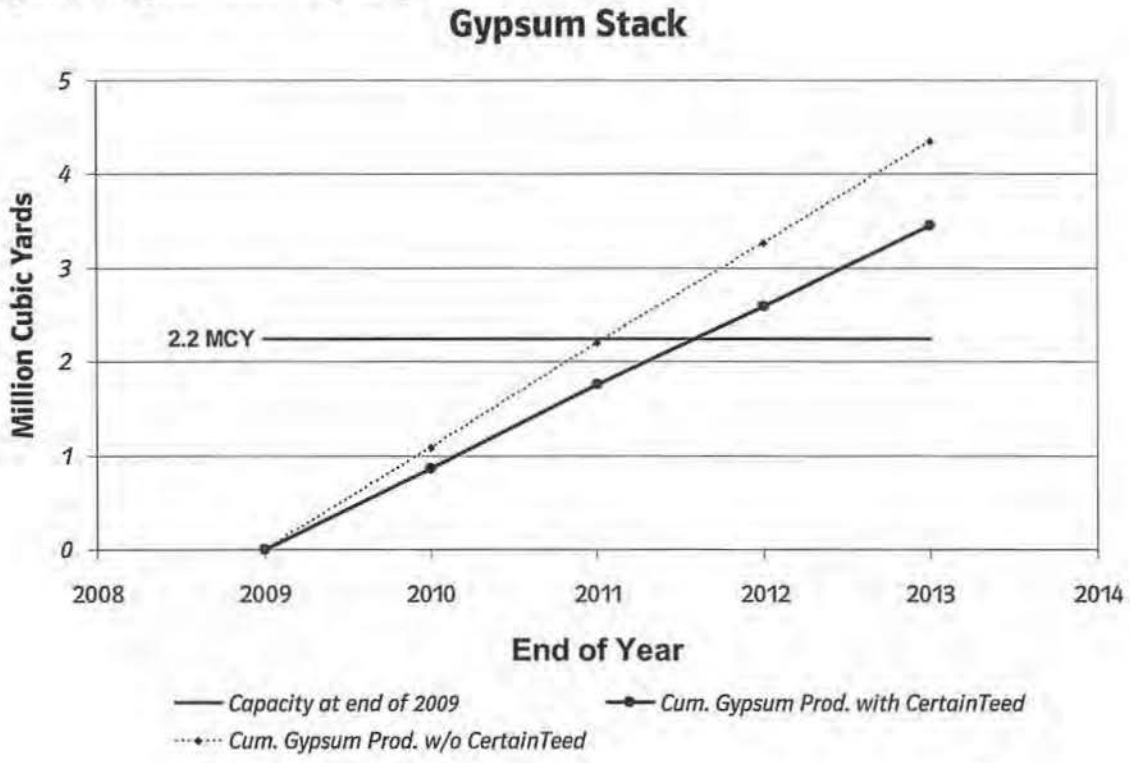


Figure 2: Gypsum Stack Capacity



In summary, the needs assessment indicates that additional CCP disposal alternatives will be needed for both ash and gypsum at Ghent by 2012. At least 0.6 MCY of CCP must be moved off-site in order to maintain operations of the existing storage facilities at Ghent through 2012.

5. Development of Alternatives

In the case of CCP solutions for Ghent, Project Engineering and the CCP team developed two sets of options for evaluation:

1. Short-term storage options to meet 2009-2012 requirements
2. Long-term storage options to meet 2013-2037 requirements.

The short-term options were developed because long-term options cannot be in service before 2013, and on-site capacity is expected to be depleted in 2012. These options were evaluated independently, leading to a recommendation for short-term and long-term solutions.

5.1 Short-Term Disposal

As a result of ATB #2 and the gypsum stack nearing their maximum desired storage capacities, the station, in conjunction with the CCP Team, negotiated with Trans Ash, Inc. ("Trans Ash"), a company specializing in the reuse of CCP, to beneficially reuse 1.3 MCY (approximately 1.5 million tons as hauled) of CCP as structural fill. The 2009 base cost of this proposal is [redacted] per MCY[13], subject to annual adjustments to the base price and fuel cost adjustments. The base price is redetermined by increasing the previous year's price by 90 percent of the year-over-year percent change in the Consumer Price Index – All Urban Customers, U.S. City Average. The fuel adjustments are made for both off-road and on-road diesel use. Off-road fuel adjustments are calculated as the difference between the base diesel unit price of [redacted] per gallon and the average unit diesel price paid multiplied by the quantity of off-road diesel purchased each year. The on-road diesel adjustment is calculated as the product of the average quantity of fuel used and the difference between the base diesel price and the index price as published by the U.S. Department of Energy, Energy Information Administration in "The U.S. No 2 Diesel Low Sulfur (15-500 ppm) Retail Sales by All Sellers (Cents per Gallon)"

An agreement with Trans Ash would require that the full 1.3 MCY be moved in 2010-2012 to satisfy the end consumer of the beneficial reuse opportunity. Consistent with KU's CCP management strategy, this fill location has been evaluated and confirmed as appropriate for beneficial reuse. The location is not in an environmentally sensitive area.

The only near-term alternative to beneficial reuse of CCP is the use of an existing off-site commercial landfill. For 2009, the total unit cost of storage in the closest off-site landfill was estimated to be [redacted] per cubic yard[14]. In contrast to the Trans Ash proposal, an off-site landfill storage option requires that only a minimum of 0.6 MCY must be moved off-site prior to 2013 to ensure continuing operations at Ghent.

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13 [redacted] per MCY as stored is equivalent to [redacted] per ton as hauled.

14 [redacted] per cubic yard is equivalent to [redacted] per ton as hauled for transport and storage at Valley View landfill near Sulphur, KY, approximately 25 miles from Ghent. Cost components per ton are [redacted] for excavating and loading, [redacted] for hauling, and [redacted] for landfill tipping fee. This quoted tipping fee is slightly below the listed rates of [redacted]/ton for other regional public landfills.

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5.2 Long-Term Storage

To meet the long-term storage needs at Ghent, KU contracted GAI Consultants, Inc., Pittsburgh, PA ("GAI") to provide both an Initial Siting Study ("ISS") and a Final Conceptual Design Study of CCP storage alternatives at Ghent.[15] The ISS identified over forty potential alternatives based on combinations of a number of variables, including storage and transport methods, site locations, and relocation of transmission lines. As a result of this study, four on-site alternatives shown in Table 3 were selected for further consideration. In the process of developing the Final Conceptual Design Study, GAI refined the cost estimates for these alternatives in addition to other detailed engineering tasks. As an alternative to building on-site storage facilities, use of an existing off-site commercial landfill for storing future CCP was also considered as a long-term option.

Table 3: Alternatives for Long-Term Storage

		On-Site				
Case		**14/28**	**37**	**41**	**42/28**	**Off-Site Landfill**
Description		2 Landfills	1 Landfill	1 Pond	1 Pond 1 Landfill	
Total Capacity *(MCY)*		46.1	46.1	53.6	48.3	46.1 needed
Nominal Cost *($M)*	**Capital**					
	O&M[16]					

Each of the cases for on-site long-term storage was designed to hold twenty-five years of CCP production with phased construction. The total capacity required for each case differs due to the different density of CCP stored in ponds versus landfills. Table 4 shows the construction periods, the in-service years, and the capacity for each phase of the on-site cases. The site locations as shown in Figure 3 are noted as follows:

- Site M is north of ATB #2 on property owned by KU.
- Site E/F which is southeast of ATB #2 and include properties owned by KU and approximately 350 acres owned by others.
- Pond L represents vertical and lateral expansion east of ATB #2 with an impoundment.

[15] A preliminary draft of the Final Conceptual Design Study is shown in Exhibit JNV-4.
[16] The O&M figures in Table 3 include the cost for power to operate the on-site storage alternatives.

Figure 3: CCP Storage Site Alternatives

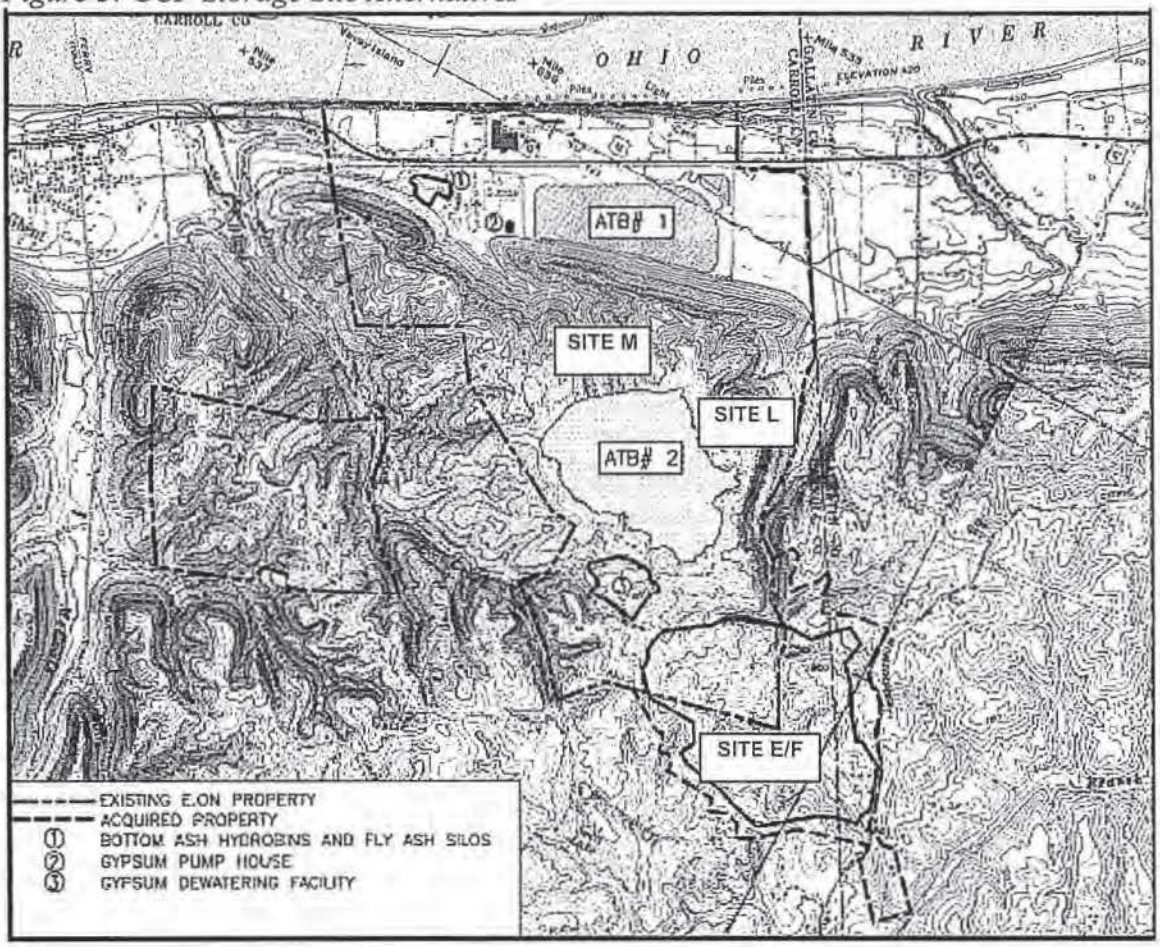


Table 4: Construction Phases for On-Site Storage Options

Case		14/28		37	41	42/28	
Site Location		M	E/F	E/F	L	L	E/F
Phase 1	Construction	2010-14		2010-14	2010-13	2010-14	
	In-Service	2013		2013	2013	2013	
	Capacity *(MCY)*	5.3	5.7	14.7	16.5	7.2	8.4
Phase 2	Construction	2016-18		2018-19	2017-19	2018-20	
	In-Service	2019		2020	2020	2021	
	Capacity *(MCY)*	8.5	8.0	12.3	15.7	8.3	7.7
Phase 3	Construction	--	2023-25	2024-26	2025-27	2027-29	
	In-Service	--	2026	2027	2028	2030	
	Capacity *(MCY)*	--	12.4	19.1	21.6	6.1	8.0
Phase 4	Construction	2027-29	--	--	--	--	
	In-Service	2030	--	--	--	--	
	Capacity *(MCY)*	6.2	--	--	--	--	--

Case 14/28. Case 14/28 consists of separate landfills for ash and gypsum with ash stored at Site M and gypsum stored at Site E/F. Construction of the landfills consists of four phases as shown in Table 4 with the first phase beginning in 2010 and the final phase ending in 2029. Figure 4 shows the phased cumulative design capacity of the landfill at Site M compared to the forecasted ash production. Figure 5 shows the phased cumulative design capacity of the landfill at Site E/F compared to the forecasted gypsum production both including and excluding the effect of the expected gypsum reuse by CertainTeed. These figures, as well as Figures 6-9, demonstrate that the designs for the timing and volume of capacity additions for each of the cases considered are reasonable compared the forecasted CCP production.

Figure 4: Long-Term Needs Assessment – Case 14/28, Landfill M

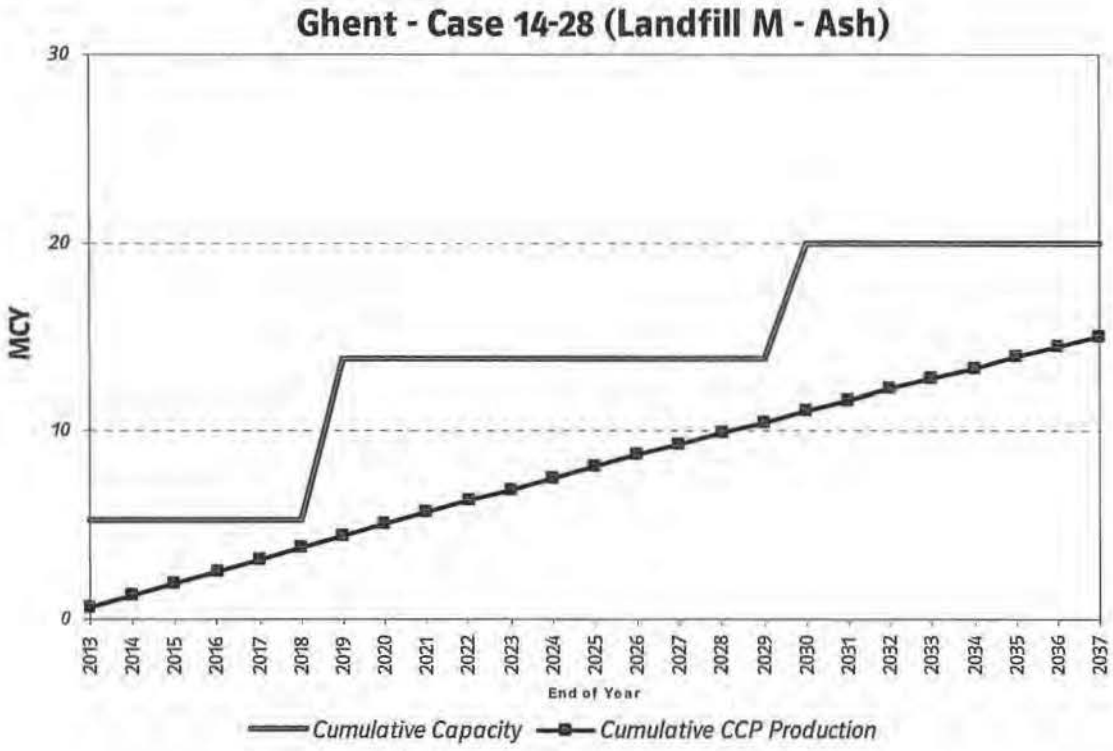
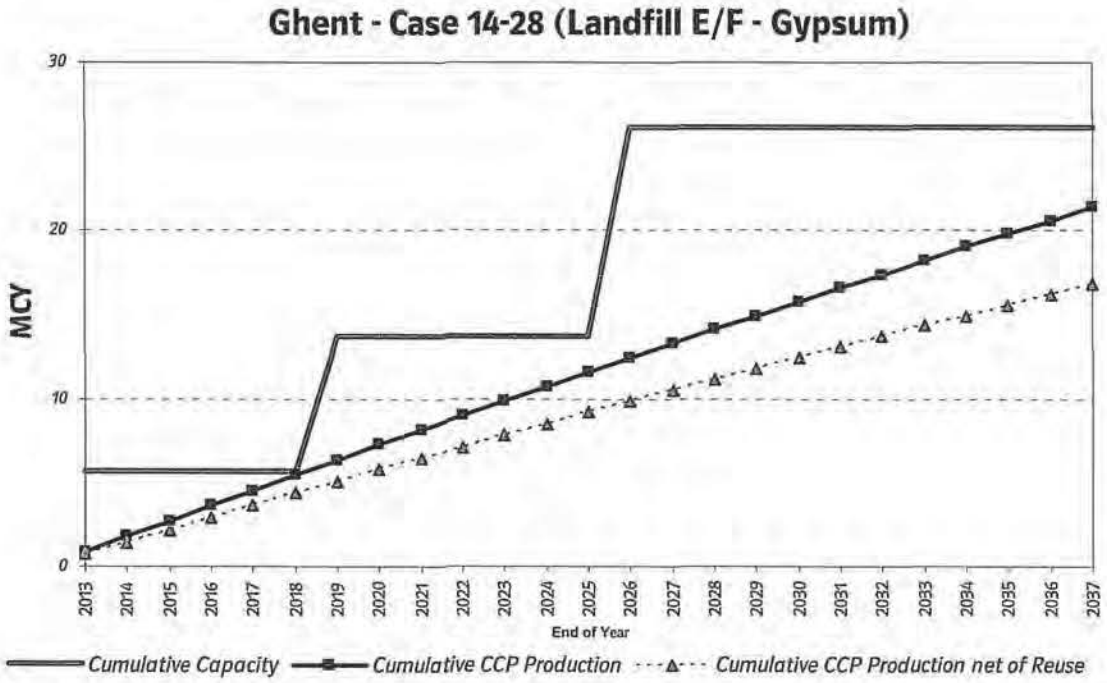
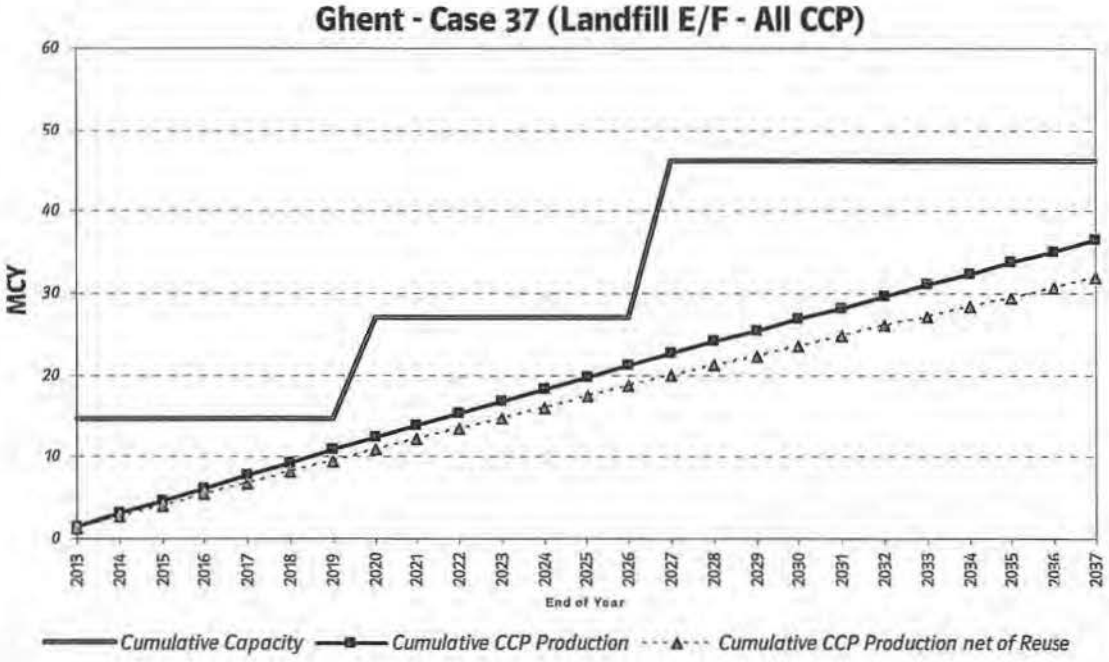


Figure 5: Long-Term Needs Assessment – Case 14/28, Landfill E/F



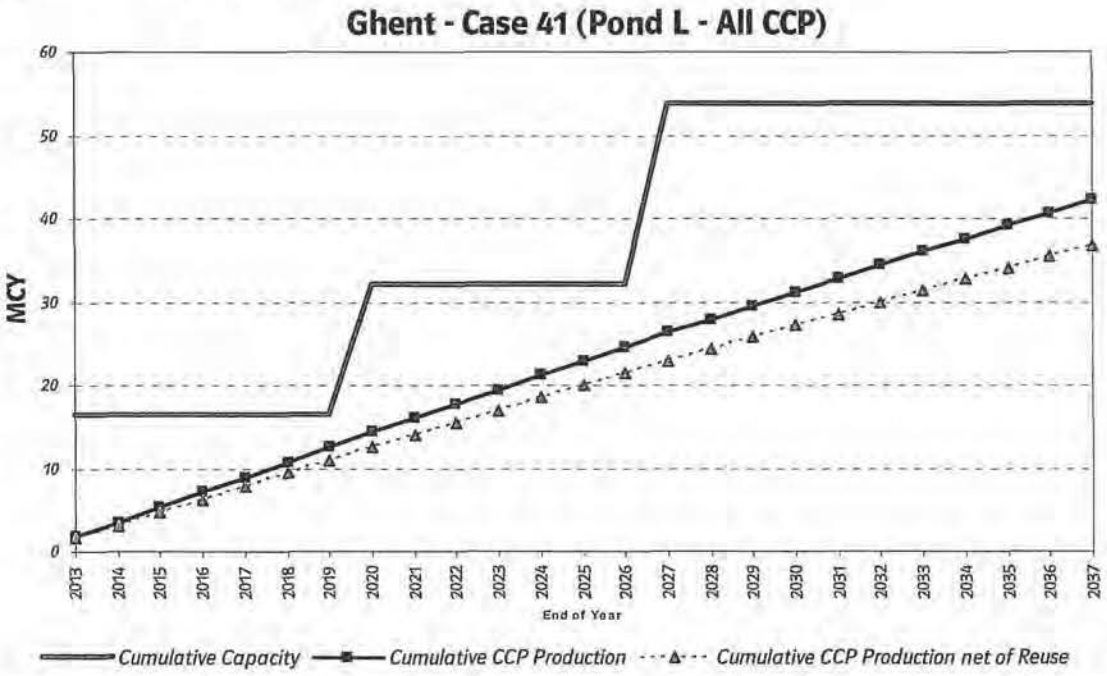
Case 37. Case 37 consists of a single landfill for both ash and gypsum at Site E/F. The construction schedule consists of three phases beginning in 2010 and ending in 2026. Figure 6 shows the phased cumulative design capacity of this landfill compared to the forecasted cumulative CCP production both including and excluding the effect of the expected gypsum reuse by CertainTeed.

Figure 6: Long-Term Needs Assessment – Case 37, Landfill E/F



Case 41. Case 41 consists of a single pond for both ash and gypsum at Site L. The construction schedule consists of three phases beginning in 2010 and ending in 2027. Figure 7 shows the phased cumulative design capacity of this landfill compared to the forecasted cumulative CCP production both including and excluding the effect of the expected gypsum reuse by CertainTeed.

Figure 7: Long-Term Needs Assessment – Case 41, Pond L



Case 42/28. Case 42/28 consists of a pond at "Site L" for ash and a landfill at "Site E/F" for gypsum. Construction of these facilities consists of four phases as shown beginning in 2010 and the final phase ending in 2029. Figure 8 shows the phased cumulative design capacity of the pond at Site L compared to the forecasted ash production. Figure 9 shows the phased cumulative design capacity of the landfill at Site E/F compared to the forecasted gypsum production both including and excluding the effect of the expected gypsum reuse by CertainTeed.

Figure 8: Long-Term Needs Assessment – Case 42/28, Pond L

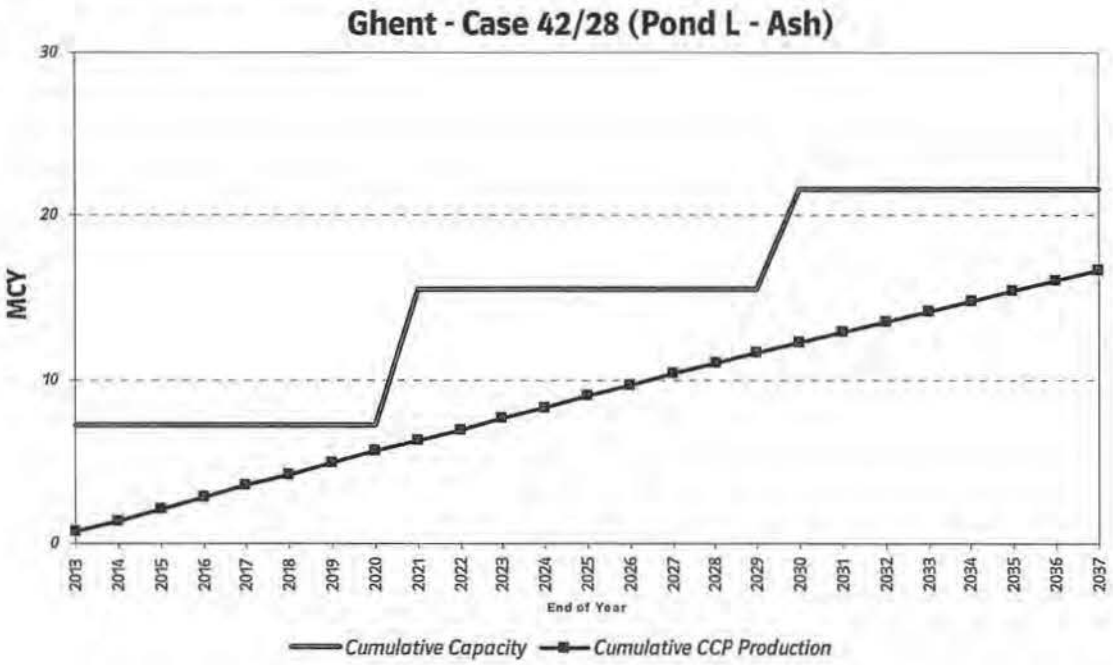
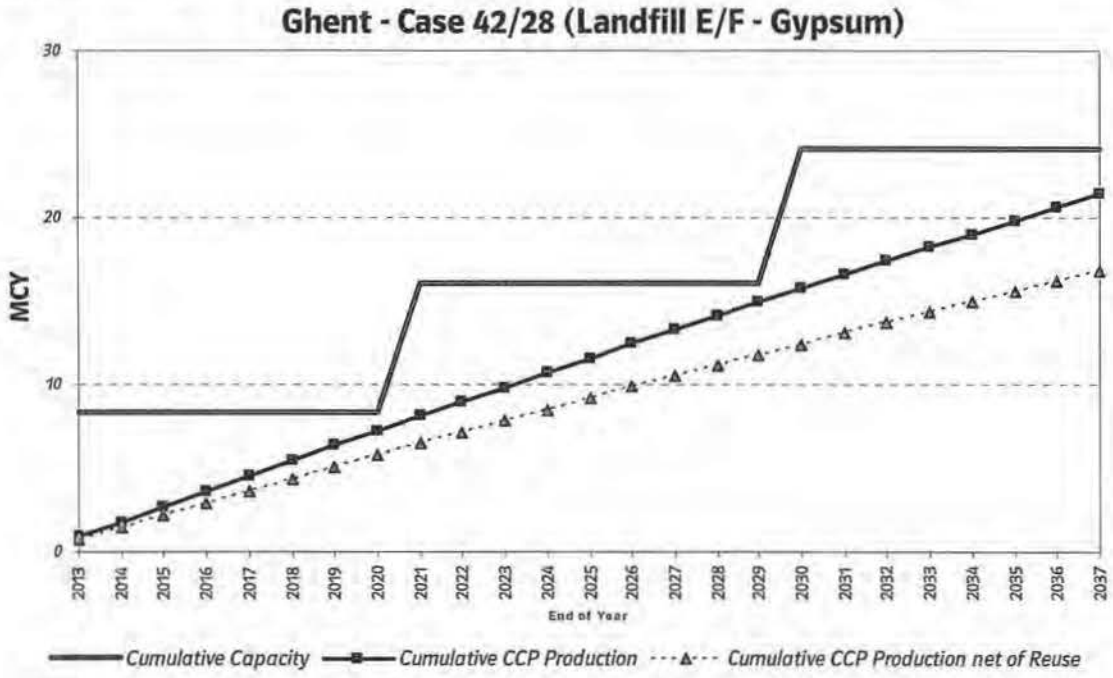


Figure 9: Long-Term Needs Assessment – Case 42/28, Landfill E/F



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6. Comparison of Alternatives

6.1 Short-Term Disposal

The short term disposal analysis compares the cost of a beneficial reuse initiative with Trans Ash to the cost of off-site landfill disposal. The Trans Ash proposal is to move 1.3 MCY in 2010 through 2012 and the plan for off-site landfill disposal is to move 0.6 MCY in 2012. Both of these options consist only of O&M costs, with no additional capital expenditure. As seen in Table 5, the Trans Ash proposal is the least-cost option to meet the short term capacity needs at Ghent. On a cost per volume basis, the Trans Ash option is almost 80% less costly than the off-site landfill option. Also, despite the higher volume requirement, the Trans Ash proposal's PVRR is $9.8 million lower than the off-site landfill alternative.

Table 5: PVRR Analysis Summary of Short-Term Alternatives

	Trans Ash Beneficial Reuse	**Off-site Landfill Disposal**
Total Quantity *(MCY)*	1.3	0.6
PVRR *(2009 million $)*		
Delta to Least Cost Case	*Least Cost*	*9.8*
Unit Cost *(2009 PVRR $/cubic yard)*		

6.2 Long-Term Storage

The long-term storage evaluation (Table 6) compares the PVRR and per-unit cost of four on-site storage alternatives selected in the engineering studies, in addition to disposal in an off-site commercial landfill. The financial assumptions related to the analysis of these cases are shown in Appendix 1, the projected cash flows are shown in Appendix 2, and the annual revenue requirements are detailed in Appendix 3.

The following is a brief comparison of the results:

Case 37. Case 37 consists of a common on-site landfill for both ash and gypsum. This is least cost on a PVRR basis by $26 million. This option is also lowest cost on a per unit volume basis at [redacted] PVRR per cubic yard. The favorable capital profile of this project results from the single landfill approach compared to Case 14/28, which includes separate landfills for ash and gypsum.

Case 14/28. Case 14/28 consists of separate landfills for ash and gypsum and involves higher up-front capital costs ($34 million higher through 2017, $6 million of which is due to transmission expenditures), an accelerated timeline for the addition of subsequent phases, and an additional construction phase compared to Case 37. This is partially offset by slightly lower annual O&M costs due to reduced distances for transporting ash. In summary, the lower costs associated with the shorter transport distances are overcome by the additional costs of the two landfills.

Cases 41 and Case 42/28. Case 41 consists of a single pond for both ash and gypsum and Case 42/28 consists of an ash pond and a gypsum landfill. The construction of an ash

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pond is significantly more capital intensive compared to a landfill, although the ongoing operation is less costly. Through 2016, both of these cases are approximately $95 million higher in total capital costs than Case 37. Construction of the second and third phases increases the capital premium to $850 million for Case 41 and $350 for Case 42/28. Inclusion of the pond closure costs in 2038 raises these figures to $1,145 million and $475 million for Cases 41 and 42/28, respectively. Although the O&M is significantly lower for these cases compared to Case 37, it is not enough to offset the effect of the higher initial capital expenditures.

Off-site landfill. The off-site landfill option consists only of O&M costs, but this option is the highest-cost alternative due to the high unit cost of off-site landfill disposal, which is approximately [redacted] PVRR per cubic yard.

Beneficial Reuse. KU will evaluate beneficial reuse opportunities as they arise, and will pursue proposals that are favorable to on-site disposal.

Table 6: PVRR Analysis Summary of Long-Term Alternatives
(2009 PVRR million $)

Case	**14/28**	**37**	**41**	**42/28**	**Off-Site Landfill**
PVRR					
Capital	[redacted]				
O&M					
Total					
Delta to Least Cost Case	*26*	*Least Cost*	*254*	*125*	*413*
Capacity *(MCY)*	46.1	46.1	53.6	48.3	46.1
Unit Cost *(2009 PVRR $/CY)*	[redacted]				

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7. Recommendations

The needs assessment demonstrates a need for additional CCP storage capacity at the Ghent station by 2012. Analysis of the options provided by Project Engineering demonstrates that the most favorable alternatives to meet Ghent's CCP storage needs are:

- Short-term: the proposal for beneficial reuse of 1.3 MCY of gypsum by Trans Ash in 2010 through 2012. The PVRR is [redacted] million, or [redacted] per cubic yard.
- Long-term: constructing the first phase of an on-site landfill to store both ash and gypsum, to be in-service in 2013. The PVRR is [redacted] million, comprised of [redacted] million capital and [redacted] million O&M.

The short-term solution utilizing beneficial reuse is almost 80% less on a per unit of volume basis than disposal at an off-site commercial landfill. The unit cost of this short-term recommendation is also lower than the unit cost of the recommended long-term on-site landfill. The long-term solution includes the construction of a single landfill and is 4% less on a PVRR basis than the dual landfill option (Case 14/28).

Further details regarding the status of this project and the expected construction schedule are shown in Appendix 4.

Appendix 1

Analysis Assumptions

- Study Period: 30-year period for operational costs impacts (2009-2038)
  50-year period for capital costs impacts (2009 through tax life of final project phase).

  The revenue requirements associated with capital costs are determined via the Capital Expenditure and Recovery module of the Strategist production and capital costing software. To completely account for capital projects costs over their lifetime, the revenue requirements associated with new capital projects were included beyond the operational study period through the end of their tax life.

- Capital and O&M costs associated with the addition of new environmental projects will be subject to recovery through the Environmental Cost Recovery ("ECR") mechanism. O&M costs for electrical power usage required to operate equipment related to CCP storage are included when comparing alternatives (noted as "Power" in Appendix 2) but are not included as recoverable costs for calculation of ECR billing factors.

- Financial data
  - Discount rate: 7.81%
  - Income tax rate: 38.9%
  - Insurance rate: 0.07%
  - Property tax rate: 0.15 %
  - Percentage of debt in capital structure: 47.01%
  - Debt interest rate/weighted cost of debt: 4.64%
  - Return on equity: 10.63%
  - Book life - average landfill phase (non-transmission): 12 years
  - Book life – transmission (line relocation): 40 years
  - Tax life: 20 years
  - Annual capital and O&M escalation rate: 6%
  - Contingency included in cost estimates: ~28%
  - E.ON US overhead included in capital costs 3.5%
  - Capital expenditures are assumed to occur at year end.

- CCP data
  - Coal ash content: 11.5%
  - Coal SO_2 content: ~5.9 lb/mmBTU
  - Coal heat content: 22.16 mmBTU/ton
  - FGD removal efficiency:
    Units 1, 3, 4 98%
    Unit 2 (currently Unit 1) 94.3%

Appendix 2

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Projected Cash Flows

Annual Cash Flows Short-Term Options O&M Only *($ thousands)*		
Case	**Beneficial Reuse**	**Off-Site Landfill**
2008	[redacted]	
2009		
2010		
2011		
2012		
2013+		
Total		

$ thousands

Case **14/28** **2 landfills**

	Annual Cash Flows										
	Capital						**O&M**				**Total**
	Phase1	Phase2	Phase3	Phase4	Transmission	**Total Capital**	Non-Power	Power	Trans Ash	**Total O&M**	
2008	[redacted]										
2009											
2010											
2011											
2012											
2013											
2014											
2015											
2016											
2017											
2018											
2019											
2020											
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2030											
2031											
2032											
2033											
2034											
2035											
2036											
2037											
2038											
Total											

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$ thousands

Case 37 1 landfill

	Annual Cash Flows										
	Capital						O&M				Total
	Phase1	Phase2	Phase3	Phase4	Transmission	Total Capital	Non-Power	Power	Trans Ash	Total O&M	
2008											
2009											
2010											
2011											
2012											
2013											
2014											
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2031											
2032											
2033											
2034											
2035											
2036											
2037											
2038											
Total											

CCP Plan for Ghent Station
June 2009
Appendix 2 – Projected Cash Flows

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$ thousands

Case 41 1 pond

	Annual Cash Flows										
	Capital						O&M				Total
	Phase1	Phase2	Phase3	Phase4	Transmission	**Total Capital**	Non-Power	Power	Trans Ash	**Total O&M**	
2008	[redacted]										
2009											
2010											
2011											
2012											
2013											
2014											
2015											
2016											
2017											
2018											
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2032											
2033											
2034											
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2036											
2037											
2038											
Total											

CCP Plan for Ghent Station
June 2009
Appendix 2 – Projected Cash Flows

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$ thousands

Case 42/28 1 pond/1 landfill

	Annual Cash Flows										
	Capital						O&M				Total
	Phase1	Phase2	Phase3	Phase4	Transmission	Total Capital	Non-Power	Power	Trans Ash	Total O&M	
2008	[redacted]										
2009											
2010											
2011											
2012											
2013											
2014											
2015											
2016											
2017											
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2034											
2035											
2036											
2037											
2038											
Total											

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$ thousands

Case	Off-Site Landfill (O&M Only)		
	Capital	O&M	
Cost Escalation		6%	2%
2008	[redacted]		
2009			
2010			
2011			
2012			
2013			
2014			
2015			
2016			
2017			
2018			
2019			
2020			
2021			
2022			
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2032			
2033			
2034			
2035			
2036			
2037			
2038			
Total			

Appendix 3

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Revenue Requirements Detail

$ thousands

Case **Short-Term Beneficial Reuse (O&M Only)**

	Capital	O&M
2008	[redacted]	
2009		
2010		
2011		
2012		
2013+		
2009 PVRR		

$ thousands

Case **Short-Term Off-Site Landfill (O&M Only)**

	Capital	O&M
2008	[redacted]	
2009		
2010		
2011		
2012		
2013+		
2009 PVRR		

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$ thousands

Case 14/28 2 landfills

	Annual Revenue Requirements										
	Capital						O&M				Total
	Phase1	Phase2	Phase3	Phase4	Transmission	Total Capital	Non-Power	Power	Trans Ash	Total O&M	
2009											
2010											
2011											
2012											
2013											
2014											
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2016											
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2055											
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2058											
2009 PVRR											

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$ thousands

Case 37 1 landfill

	Annual Revenue Requirements										
	Capital						O&M				Total
	Phase1	Phase2	Phase3	Phase4	Transmission	Total Capital	Non-Power	Power	Trans Ash	Total O&M	
2009											
2010											
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2057											
2058											
2009 PVRR											

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$ thousands

Case 41 1 pond

	Annual Revenue Requirements										
	Capital						O&M				Total
	Phase1	Phase2	Phase3	Phase4	Transmission	Total Capital	Non-Power	Power	Trans Ash	Total O&M	
2009	[redacted]										
2010											
2011											
2012											
2013											
2014											
2015											
2016											
2017											
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2009 PVRR											

CCP Plan for Ghent Station
June 2009
Appendix 3 – Revenue Requirements Detail

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$ thousands

Case 42/28 1 pond/1 landfill

	Annual Revenue Requirements										
	Capital						O&M				Total
	Phase1	Phase2	Phase3	Phase4	Transmission	Total Capital	Non-Power	Power	Trans Ash	Total O&M	
2009	[redacted]										
2010											
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2009 PVRR											

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Case **Off-Site Landfill (O&M Only)**

$ thousands

using 6% cost escalation

	Capital	O&M
2008	[redacted]	
2009		
2010		
2011		
2012		
2013		
2014		
2015		
2016		
2017		
2018		
2019		
2020		
2021		
2022		
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2036		
2037		
2038		
2009 PVRR		

using 2% cost escalation

	Capital	O&M
2008	[redacted]	
2009		
2010		
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2017		
2018		
2019		
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2038		
2009 PVRR		

Appendix 4

Project Status *(As of April 2009)*

Detailed Design

The detailed design phase for Case 37 is currently in progress. Meetings are being conducted with the E.ON U.S. property appraiser and the individual owners of properties within the boundaries of Site F. After obtaining approval from these property owners, geotechnical, archaeological, ecological, and historical structures studies have begun. This will allow for the completion of the detailed engineering design and the start of the development of the permits for this location. The permits are expected to be submitted by the end of 2009.

Construction Schedule

The preliminary design for the landfill is to develop it in three distinct phases. This detail as well as the closure plan for each phase will be further developed in the detailed design phase. The current schedule is shown in Table A4-1.

Table A4-1: Preliminary Construction Schedule

Task	Schedule
Property acquisition	3rd Quarter 2009
Begin first phase landfill development	2nd Quarter 2010
Finish first phase landfill development	4th Quarter 2014
Begin second phase landfill development	2nd Quarter 2018
Finish second phase landfill development	4th Quarter 2019
Begin third phase landfill development	2nd Quarter 2024
Finish third phase landfill development	4th Quarter 2026

The risks associated with the project include the following:

- Inability to reach a settlement on purchase price for one or more of the properties required for the site, resulting in lengthy eminent domain litigation
- Discovery of unknown geotechnical issues
- Litigation and intervention of the 401/404 permits for Sites E/F could delay the construction of this section of the work
- Failure of major components during start-up
- Unseasonable weather, such as exceptionally heavy rainfall, late spring, early on-set of winter, etc.
- Engineering design failure of a component of design
- Contractor delays due to shortage of materials or manpower issues
- Change in regulations

EXHIBIT B

Revenue Requirements Summary
2009 Amended Plan - KU

		2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Project 30	**Ghent Landfill - Phase I**										
	Revenue Requirement										
	Eligible Plant	4,321,671	46,476,848	105,485,803	177,577,356	191,133,916	201,941,953	202,576,976	203,254,220	203,969,979	203,969,979
	Less: Retired Plant	-	-	-	-	-	-	-	-	-	-
	Less: Accumulated Depreciation	-	-	-	-	(5,110,443)	(10,744,624)	(16,396,577)	(22,067,370)	(27,758,132)	(33,448,895)
	Plus: Accumulated Depreciation on retired plant	-	-	-	-	-	-	-	-	-	-
	Less: Deferred Tax Balance	-	-	-	-	(732,114)	(3,915,287)	(6,717,731)	(9,167,625)	(11,289,716)	(13,100,909)
	Plus: Deferred Tax Balance on retired plant	-	-	-	-	-	-	-	-	-	-
	Environmental Compliance Rate Base	4,321,671	46,476,848	105,485,803	177,577,356	185,291,361	187,282,042	179,464,668	172,019,025	164,922,131	157,420,175
	Rate of return	11.12%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
		$ 480,509	$ 5,098,393	$ 11,571,030	$ 19,478,952	$ 20,325,122	$ 20,543,496	$ 19,685,976	$ 18,869,243	$ 18,090,765	$ 17,267,855
	Operating expenses	84,800	121,349	128,630	136,348	19,003,308	20,143,507	21,352,117	22,633,244	23,991,239	25,430,713
	Annual Depreciation expense	-	-	-	-	5,110,443	5,634,180	5,651,953	5,670,793	5,690,762	5,690,762
	Less depreciation on retired plant	-	-	-	-	-	-	-	-	-	-
	Annual Property Tax expense	-	6,483	69,716	158,229	266,366	279,035	286,796	279,274	271,780	264,318
	Total OE	$ 84,800	$ 127,832	$ 198,346	$ 294,577	$ 24,380,117	$ 26,056,723	$ 27,290,866	$ 28,583,310	$ 29,953,782	$ 31,385,793
	Total E(m)	565,309	5,226,225	11,769,376	19,773,528	44,705,239	46,600,208	46,976,843	47,452,553	48,044,547	48,653,648

EXHIBIT C

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

THE APPLICATION OF KENTUCKY UTILITIES COMPANY FOR A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY AND APPROVAL OF ITS 2009 COMPLIANCE PLAN FOR RECOVERY BY ENVIRONMENTAL SURCHARGE	))))))	CASE NO. 2009-00197

DIRECT TESTIMONY OF
JOHN N. VOYLES, JR.
VICE PRESIDENT, TRANSMISSION AND GENERATION SERVICES
KENTUCKY UTILITIES COMPANY

Filed: June 26, 2009

contain sufficient capacity for bottom ash storage for approximately 30 years. The Main Pond will have approximately six (6) years of projected remaining capacity after elevation 912 feet is completed in 2012.

Exhibit JNV-8 is a conceptual design report for the Brown station ash treatment basin, prepared by the Fuller Mossbarger Scott and May engineering firm. Exhibit JNV-9 is a preliminary design report for the Brown station ash treatment basin, also prepared by Fuller Mossbarger Scott and May engineering firm. Exhibits JNV-8 and JNV-9 are on the compact disc included with this testimony and provide more details associated with this project.

Q. Is this project a cost-effective means of complying with environmental regulations and permits?

A. Yes, this project allows KU to continue to comply with all applicable environmental regulations. As first demonstrated in Case No. 2004-00426, and consistent with the 2006 ECR Update made to the Commission staff, the phased approach to the construction of the ash treatment basins continues to be the least-cost approach to manage CCP at the Brown station. As detailed in the testimony of Mr. Schram, high costs continue to preclude cost effective off-site alternatives.

Project 30 – Ghent Station Landfill

Q. Please describe the new landfill at the Ghent Station (Project 30), the anticipated cost and the associated timeline.

A. Project 30 consists of the first phase (Phase I) of a three phase, new landfill construction project at the Ghent station for continued on-site management of CCP. Completion of this project requires the procurement of approximately 350 acres of

land and relocation of approximately 2,500 linear feet of transmission line, existing underground utilities and a small cemetery (currently known to contain six burial plots). The project includes a transport system for the CCP material and the installation of a leachate collection/sediment retention pond. Phase I is expected to cost approximately $204 million with a total project capital cost (Phases I-III) estimated to be approximately $360 million. Phase I construction is expected to take 18-24 months to complete and is expected to be in-service by 2013.

Of the two existing on-site ash treatment basins, Basin #2 is currently the only operational basin at the Ghent station. Basin #1 reached its maximum desired capacity in 1995. Basin #2 was put into service in 1995 with a storage capacity of 2,580 acre-feet. In Case No. 2002-00208, KU advised the Commission that Basin #2 would be constructed in two phases. Detailed bids indicated that the two phase construction to elevation 800 feet had a projected total cost of $25.9 million (2002 dollars), while construction to 800 feet in one project had a total cost of $17.3 million. To take advantage of this significant cost savings, KU modified the construction project and undertook a single project to elevate the dike to 800 feet. As mentioned in Exhibit CRS-3 of Mr. Schram's testimony (the Coal Combustion Byproduct Plan for the Ghent station), vertical expansion of Basin #2 beyond 800 feet at Ghent was determined to be cost prohibitive.

Project 30 (Phase I of the proposed new landfill at the Ghent generating station) includes the following scope of work:

1. **Initial Siting Study** (Completed) – This phase evaluated various CCP storage locations on existing Ghent property and the area surrounding the plant. Initially, 42 landfill and impoundment scenarios were evaluated during this study.

2. **Conceptual Design** (Completed) – This phase took the results of the Initial Siting Study and developed 5 storage alternatives and provided scope of work estimates and net present value evaluations. Based on this data the best storage alternative was chosen, Case #37 – Single 25 year, landfill located on both existing plant and non-plant property.

3. **Final Design** (In Progress) – This phase will design and permit Case #37. Work in this phase will include the landfill design/permitting, wetlands/stream mitigation, transmission/distribution line relocation design, various environmental studies, etc. The goal of this phase is to obtain the construction permits, develop Issued for Construction drawings and specifications for all phases, as well as develop the landfill O&M manual.

4. **Phase I Construction** – Once the Certificate of Public Convenience and Necessity ("CPCN") and the permits have been received, a contractor will be chosen to perform the following (this is a high level list of activities):

- Mobilization
- Clearing and grubbing of the landfill and borrow areas
- Construction of stormwater/sediment ponds
- Grade work to attain the proper subgrade of the landfill
- Development of the borrow site(s)
- Installation of the liner system
- Installation of the leachate collection system, ponds, as well as the transfer system
- Construction of new site access roads
- Installation of the gypsum fines systems
- Construction of the CCP transfer storage facility across US-42
- Installation of the pipe conveyor
- Construction of the Gypsum Dewatering facility
- Upgrades to existing CCP transfer systems
- De-mobilization

Exhibit JNV-10 consists of two GAI Consultants reports on the initial siting study and conceptual design of the Ghent station landfill and is on the compact disc included with this testimony. Exhibit JNV-10 provides more details associated with this project.

Q. Is KU requesting a CPCN for the proposed landfill at Ghent (Project 30)?

A. Yes, as discussed in the testimony of Mr. Bellar, KU is requesting a CPCN for Project 30 in Exhibit JNV-1. Project 30 is associated with the construction of a new landfill and supporting systems at the Ghent station.

Q. Why is KU seeking a CPCN for Project 30, the proposed Ghent landfill at this time?

A. As discussed in Exhibit CRS-3 of Mr. Schram's testimony, KU's Ghent station produces three (3) coal combustion byproducts: bottom ash, fly ash and gypsum. The station has two (2) existing on-site treatment basins for ash and two (2) stacking areas for gypsum. Basin #1 is at its maximum desired capacity. As discussed in Exhibit CRS-3, Basin #2 and the gypsum stack facilities are both forecasted to reach their maximum desired capacity in 2012. In accordance with the CCP Strategy and the analysis presented in Mr. Schram's testimony, the recommended long-term CCP management alternative is Project 30, a landfill for all CCP material. The preliminary construction schedule for this project requires construction of the landfill to begin in 2010. As such, KU is requesting a CPCN in support of this project.

Q. What alternatives to the proposed project were evaluated?

A. The Initial Siting Study identified 42 potential alternatives based on combinations of variables including

- storage and CCP transport methods

- site locations
- transmission line relocation needs

Consistent with the CCP Strategy, opportunities for beneficial reuse were also evaluated by the Companies. The beneficial reuse alternatives at Ghent are discussed in Project 33. Mr. Schram's testimony provides details associated with the evaluation of the alternatives at Ghent.

Q. Is the proposed new on-site landfill at Ghent (Project 30) consistent with the Companies' strategy for long-term management of CCP?

A. Yes. The landfill ensures adequate on-site CCP management capacity exists for the long-term and will be constructed in multiple phases. Furthermore, as discussed in Mr. Schram's testimony, analytical assessments have been performed to identify and utilize any cost effective beneficial reuse alternatives in order to minimize environmental impact and promote environmental stewardship.

Q. Is this project a cost-effective means of complying with environmental regulations and permits?

A. Yes. Project 30 provides the best means of compliance with discharge and water quality regulations. Mr. Schram's testimony provides details associated with the economics of this project.

Project 31 -- Trimble County Station
Ash Treatment Basin and Gypsum Storage Pond

Q. Please describe the Trimble County Station Ash Treatment Basin and Gypsum Storage Pond (Project 31), the anticipated cost and the associated timeline.

A. The primary CCP managed at the Trimble County station are bottom ash, fly ash and gypsum, all of which are currently managed either through treatment in the 85 acre

EXHIBIT D

Revenue Requirments Summary
Gypsum Disposal at Sterling Materials

			2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Revenue Requirement													
Eligible Plant			$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 203,254,220	$ 203,969,979	$ 203,969,979	$ 248,969,979
Less Gypsum Plant			$ -	$ (14,090,000)	$ (40,060,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (98,110,000)
Revised Eligible Plant			$ 4,321,671	$ 32,388,846	$ 65,425,803	$ 124,467,356	$ 138,023,918	$ 148,831,953	$ 149,468,976	$ 150,144,220	$ 150,859,979	$ 150,859,979	$ 150,859,979
Less Accumulated Depreciation							$ (3,690,414)	$ (7,842,826)	$ (12,013,010)	$ (16,202,034)	$ (20,411,027)	$ (24,620,020)	$ (28,829,013)
Less Deferred Tax Balance							$ (528,683)	$ (2,857,926)	$ (4,921,730)	$ (6,731,945)	$ (8,301,165)	$ (9,641,200)	$ (11,289,441)
Environmental Compliance Rate Base			$ 4,321,671	$ 32,388,846	$ 65,425,803	$ 124,467,356	$ 133,804,821	$ 138,131,202	$ 132,534,236	$ 127,210,241	$ 122,147,788	$ 116,598,759	$ 110,741,525
Rate of Return			11.1%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
Assumed Tons (1.155)	1,000,000		$ 480,509	$ 3,553,056	$ 7,177,211	$ 13,654,069	$ 14,678,389	$ 15,152,993	$ 14,539,006	$ 13,954,963	$ 13,399,612	$ 12,790,884	$ 12,148,345
86.7500% Cubic yards	867,500												
Operating Expenses			$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,556
less Gypsum to On-site Landfill							$ (8,887,032)	$ (9,420,254)	$ (9,985,469)	$ (10,584,598)	$ (11,219,674)	$ (11,892,854)	$ (12,606,425)
Gypsum to Sterling	**$ 10.50**						$ 10,500,000	$ 11,130,000	$ 11,797,800	$ 12,505,668	$ 13,256,008	$ 14,051,369	$ 14,894,451
Net Operating			$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 20,616,276	$ 21,853,253	$ 23,164,448	$ 24,554,314	$ 26,027,573	$ 27,589,228	$ 29,244,581
Annual Depreciation							$ 3,690,414	$ 4,152,411	$ 4,170,184	$ 4,189,024	$ 4,208,993	$ 4,208,993	$ 4,208,993
Annual Property Tax Expense				$ 6,483	$ 69,718	$ 158,229	$ 266,366	$ 279,017	$ 286,798	$ 279,274	$ 271,751	$ 264,317	$ 264,317
Total OE			$ 84,800	$ 127,832	$ 198,348	$ 294,577	$ 24,573,056	$ 26,284,681	$ 27,621,430	$ 29,022,612	$ 30,508,317	$ 32,062,537	$ 33,717,891
Total E(m) Gypsum to Sterling		$ 476,298,826	$ 565,309	$ 3,680,888	$ 7,375,559	$ 13,948,646	$ 39,251,445	$ 41,437,674	$ 42,160,436	$ 42,977,575	$ 43,907,929	$ 44,853,421	$ 45,866,236
Total E(m) - Project 30 (See below)		$ 555,782,375	$ 565,309	$ 5,226,225	$ 11,769,378	$ 19,773,528	$ 44,705,239	$ 46,600,208	$ 46,976,843	$ 47,458,553	$ 48,044,547	$ 48,653,648	$ 55,312,476
Difference **PVRR**	**7.81%**	**$ (79,483,549)**	$ -	$ (1,545,337)	$ (4,393,819)	$ (5,824,882)	$ (5,453,794)	$ (5,162,534)	$ (4,816,407)	$ (4,480,978)	$ (4,136,618)	$ (3,800,227)	$ (9,446,240)
Date			12/31/2009	12/31/2010	12/31/2011	12/31/2012	12/31/2013	12/31/2014	12/31/2015	12/31/2016	12/31/2017	12/31/2018	12/31/2019

Revenue Requirments Summary
2009 Amended Plan
Project 30 Ghent Landfill Phase I
See Exhibit B

			2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
													Start Phase II
Revenue Requirement													$ 40,000,000
Eligible Plant			$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 203,254,220	$ 203,969,979	$ 203,969,979	$ 248,969,979
Less Gypsum Plant			$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Revised Eligible Plant			$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 203,254,220	$ 203,969,979	$ 203,969,979	$ 248,969,979
Less Accumulated Depreciation							$ (5,110,443)	$ (10,744,623)	$ (16,396,576)	$ (22,067,369)	$ (27,758,131)	$ (33,448,893)	$ (40,395,155)
Less Deferred Tax Balance							$ (732,114)	$ (3,915,341)	$ (6,717,677)	$ (9,168,992)	$ (11,289,232)	$ (13,098,586)	$ (15,818,743)
Environmental Compliance Rate Base			$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 185,291,361	$ 187,281,989	$ 179,464,723	$ 172,017,859	$ 164,922,616	$ 157,422,500	$ 192,756,081
Rate of Return			11.1%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
			$ 480,509	$ 5,098,729	$ 11,571,793	$ 19,480,236	$ 20,326,462	$ 20,544,834	$ 19,687,280	$ 18,870,359	$ 18,092,011	$ 17,269,248	$ 21,145,342
Operating Expenses			$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,555.78
less Gypsum to On-site Landfill							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Gypsum to Sterling							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Net Operating			$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,556
Annual Depreciation							$ 5,110,443	$ 5,634,180	$ 5,651,953	$ 5,670,793	$ 5,690,762	$ 5,690,762	$ 6,946,262
Annual Property Tax Expense				$ 6,483	$ 69,718	$ 158,229	$ 266,366	$ 279,017	$ 286,798	$ 279,274	$ 271,751	$ 264,317	$ 264,317
Total OE			$ 84,800	$ 127,832	$ 198,348	$ 294,577	$ 24,380,117	$ 26,056,704	$ 27,290,868	$ 28,583,311	$ 29,953,752	$ 31,385,792	$ 34,167,134
Total E(m) Gypsum to On-site Landfill as Calculated			$ 565,309	$ 5,226,561	$ 11,770,141	$ 19,774,813	$ 44,706,579	$ 46,601,539	$ 46,978,148	$ 47,453,670	$ 48,045,763	$ 48,655,040	$ 55,312,476
Total E(m) Gypsum to On-site Landfill per KU			$ 565,309	$ 5,226,225	$ 11,769,378	$ 19,773,528	$ 44,705,239	$ 46,600,208	$ 46,976,843	$ 47,458,553	$ 48,044,547	$ 48,653,648	
Calculation Check Difference			$ -	$ 336	$ 763	$ 1,285	$ 1,340	$ 1,331	$ 1,305	$ (4,883)	$ 1,216	$ 1,392	
Site E/F Hauling cost of Ash 2.25 mile round trip							$ 2,822,723	$ 2,992,086	$ 3,171,612	$ 3,361,908	$ 3,563,623	$ 3,777,440	$ 4,004,087
Haul Road Maintenance							$ 53,529	$ 56,741	$ 60,145	$ 63,754	$ 67,579	$ 71,634	$ 75,932
Total							$ 2,876,252	$ 3,048,827	$ 3,231,757	$ 3,425,662	$ 3,631,202	$ 3,849,074	$ 4,080,018
Reduce by 50% for Site M			$ -	$ -	$ -	$ -	$ 1,438,126	$ 1,524,414	$ 1,615,878	$ 1,712,831	$ 1,815,601	$ 1,924,537	$ 2,040,009
Difference **PVRR**	**7.81%**	**$ (21,865,903)**											

Revenue Requirments Summary
Gypsum Disposal at Sterling Materials

			2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
													Start Phase II
Revenue Requirement													$ 40,000,000
Eligible Plant			$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 323,969,979	$ 353,969,979	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
Less Gypsum Plant			$ (133,110,000)	$ (133,110,000)	$ (133,110,000)	$ (133,110,000)	$ (133,110,000)	$ (173,110,000)	$ (203,110,000)	$ (209,140,021)	$ (209,140,021)	$ (209,140,021)	$ (169,140,021)
Revised Eligible Plant			$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 190,859,979
Less Accumulated Depreciation			$ (33,038,006)	$ (37,246,999)	$ (41,455,992)	$ (45,664,985)	$ (49,873,978)	$ (54,082,972)	$ (58,291,965)	$ (62,500,958)	$ (66,709,951)	$ (70,918,944)	$ (76,243,937)
Less Deferred Tax Balance			$ (12,937,683)	$ (14,585,925)	$ (16,234,167)	$ (17,882,408)	$ (19,530,650)	$ (21,178,892)	$ (22,827,133)	$ (24,475,375)	$ (26,123,617)	$ (27,771,858)	$ (29,857,126)
Environmental Compliance Rate Base			$ 104,884,290	$ 99,027,055	$ 93,169,820	$ 87,312,585	$ 81,455,351	$ 75,598,116	$ 69,740,881	$ 63,883,646	$ 58,026,411	$ 52,169,177	$ 84,758,916
Rate of Return			10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
Assumed Tons (1.155)		1,000,000	$ 11,505,807	$ 10,863,268	$ 10,220,729	$ 9,578,191	$ 8,935,652	$ 8,293,113	$ 7,650,575	$ 7,008,036	$ 6,365,497	$ 5,722,959	$ 9,298,053
86.7500% Cubic yards		867,500											
Operating Expenses			$ 28,573,949	$ 30,288,386	$ 32,105,689	$ 34,032,031	$ 36,073,952	$ 38,238,390	$ 40,532,693	$ 42,964,655	$ 45,542,534	$ 48,275,086	$ 51,171,591
less Gypsum to On-site Landfill			$ (13,362,811)	$ (14,164,579)	$ (15,014,454)	$ (15,915,321)	$ (16,870,241)	$ (17,882,455)	$ (18,955,402)	$ (20,092,727)	$ (21,298,290)	$ (22,576,188)	$ (23,930,759)
Gypsum to Sterling	**$**	**10.50**	$ 15,788,118	$ 16,735,405	$ 17,739,529	$ 18,803,901	$ 19,932,135	$ 21,128,063	$ 22,395,747	$ 23,739,492	$ 25,163,861	$ 26,673,693	$ 28,274,114
Net Operating			$ 30,999,256	$ 32,859,211	$ 34,830,764	$ 36,920,610	$ 39,135,847	$ 41,483,997	$ 43,973,037	$ 46,611,419	$ 49,408,105	$ 52,372,591	$ 55,514,946
Annual Depreciation			$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 5,324,993
Annual Property Tax Expense			$ 322,630	$ 367,985	$ 367,985	$ 367,985	$ 367,985	$ 367,985	$ 419,820	$ 458,696	$ 466,510	$ 466,510	$ 466,510
Total OE			$ 35,530,879	$ 37,436,190	$ 39,407,743	$ 41,497,588	$ 43,712,825	$ 46,060,976	$ 48,601,850	$ 51,279,108	$ 54,083,607	$ 57,048,094	$ 61,306,449
Total E(m) Gypsum to Sterling		$ 476,298,826	$ 47,036,686	$ 48,299,458	$ 49,628,472	$ 51,075,779	$ 52,648,477	$ 54,354,089	$ 56,252,425	$ 58,287,144	$ 60,449,105	$ 62,771,052	$ 70,604,502
Total E(m) - Project 30 (See below)		$ 555,782,375	$ 60,594,706	$ 61,145,021	$ 61,752,847	$ 62,469,712	$ 63,302,156	$ 69,590,749	$ 74,557,268	$ 76,324,534	$ 77,376,925	$ 78,576,175	$ 79,939,378
Difference	**PVRR**	**7.81% $ (79,483,549)**	$ (13,558,020)	$ (12,845,563)	$ (12,124,375)	$ (11,393,932)	$ (10,653,679)	$ (15,236,660)	$ (18,304,843)	$ (18,037,390)	$ (16,927,821)	$ (15,805,123)	$ (9,334,876)
Date			12/31/2020	12/31/2021	12/31/2022	12/31/2023	12/31/2024	12/31/2025	12/31/2026	12/31/2027	12/31/2028	12/31/2029	12/31/2030

Revenue Requirments Summary
2009 Amended Plan
Project 30 Ghent Landfill Phase I
See Exhibit B

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
						Start Phase III					
Revenue Requirement	$ 40,000,000					$ 40,000,000	$ 30,000,000	$ 6,030,021			
Eligible Plant	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 323,969,979	$ 353,969,979	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
Less Gypsum Plant	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Revised Eligible Plant	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 323,969,979	$ 353,969,979	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
Less Accumulated Depreciation	$ (48,317,917)	$ (56,240,679)	$ (64,163,440)	$ (72,086,202)	$ (80,008,964)	$ (89,047,726)	$ (98,923,488)	$ (108,967,487)	$ (119,011,486)	$ (129,055,485)	$ (139,099,485)
Less Deferred Tax Balance	$ (18,921,296)	$ (22,023,850)	$ (25,126,403)	$ (28,228,957)	$ (31,331,510)	$ (34,871,089)	$ (38,738,438)	$ (42,671,668)	$ (46,604,898)	$ (50,538,128)	$ (54,471,358)
Environmental Compliance Rate Base	$ 216,730,766	$ 205,705,451	$ 194,680,135	$ 183,654,820	$ 172,629,505	$ 200,051,164	$ 216,308,054	$ 208,360,845	$ 194,383,616	$ 180,406,387	$ 166,429,157
Rate of Return	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
	$ 23,775,365	$ 22,565,888	$ 21,356,411	$ 20,146,934	$ 18,937,457	$ 21,945,613	$ 23,728,993	$ 22,857,185	$ 21,323,883	$ 19,790,581	$ 18,257,279
Operating Expenses	$ 28,573,949.13	$ 30,288,386.07	$ 32,105,689.24	$ 34,032,030.59	$ 36,073,952.43	$ 38,238,389.57	$ 40,532,692.95	$ 42,964,654.53	$ 45,542,533.80	$ 48,275,085.83	$ 51,171,590.97
less Gypsum to On-site Landfill	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Gypsum to Sterling	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Net Operating	$ 28,573,949	$ 30,288,386	$ 32,105,689	$ 34,032,031	$ 36,073,952	$ 38,238,390	$ 40,532,693	$ 42,964,655	$ 45,542,534	$ 48,275,086	$ 51,171,591
Annual Depreciation	$ 7,922,762	$ 7,922,762	$ 7,922,762	$ 7,922,762	$ 7,922,762	$ 9,038,762	$ 9,875,762	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999
Annual Property Tax Expense	$ 322,630	$ 367,985	$ 367,985	$ 367,985	$ 367,985	$ 419,820	$ 458,696	$ 466,510	$ 466,510	$ 466,510	$ 466,510
Total OE	$ 36,819,341	$ 38,579,133	$ 40,396,436	$ 42,322,778	$ 44,364,700	$ 47,645,137	$ 50,828,274	$ 53,467,349	$ 56,053,043	$ 58,785,595	$ 61,682,100
Total E(m) Gypsum to On-site Landfill as Calculated	$ 60,594,706	$ 61,145,021	$ 61,752,847	$ 62,469,712	$ 63,302,156	$ 69,590,749	$ 74,557,268	$ 76,324,534	$ 77,376,925	$ 78,576,175	$ 79,939,378
Total E(m) Gypsum to On-site Landfill per KU											
Calculation Check Difference											
Site E/F Hauling cost of Ash 2.25 mile round trip	$ 4,244,332	$ 4,498,992	$ 4,768,931	$ 5,055,067	$ 5,358,371	$ 5,679,873	$ 6,020,666	$ 6,381,906	$ 6,764,820	$ 7,170,709	$ 7,600,952
Haul Road Maintenance	$ 80,488	$ 85,317	$ 90,436	$ 95,862	$ 101,614	$ 107,711	$ 114,174	$ 121,024	$ 128,285	$ 135,982	$ 144,141
Total	$ 4,324,820	$ 4,584,309	$ 4,859,367	$ 5,150,929	$ 5,459,985	$ 5,787,584	$ 6,134,839	$ 6,502,930	$ 6,893,105	$ 7,306,692	$ 7,745,093
Reduce by 50% for Site M	$ 2,162,410	$ 2,292,154	$ 2,429,684	$ 2,575,465	$ 2,729,993	$ 2,893,792	$ 3,067,420	$ 3,251,465	$ 3,446,553	$ 3,653,346	$ 3,872,547
Difference **PVRR** **7.81% $ (21,865,903)**											

Revenue Requirments Summary
Gypsum Disposal at Sterling Materials

			2031	2032	2033	2034	2035	2036	2037	
Revenue Requirement			$ 40,000,000							
Eligible Plant			$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	
Less Gypsum Plant			$ (129,140,021)	$ (129,140,021)	$ (129,140,021)	$ (129,140,021)	$ (129,140,021)	$ (129,140,021)	$ (129,140,021)	
Revised Eligible Plant			$ 230,859,979	$ 230,859,979	$ 230,859,979	$ 230,859,979	$ 230,859,979	$ 230,859,979	$ 230,859,979	
Less Accumulated Depreciation			$ (82,684,930)	$ (89,125,923)	$ (95,566,916)	$ (102,007,909)	$ (108,448,902)	$ (114,889,895)	$ (121,330,888)	
Less Deferred Tax Balance			$ (32,379,419)	$ (34,901,711)	$ (37,424,004)	$ (39,946,297)	$ (42,468,590)	$ (44,990,883)	$ (47,513,176)	
Environmental Compliance Rate Base			$ 115,795,631	$ 106,832,345	$ 97,869,059	$ 88,905,773	$ 79,942,487	$ 70,979,202	$ 62,015,916	
Rate of Return			10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	
Assumed	Tons (1.155)	1,000,000	$ 12,702,781	$ 11,719,508	$ 10,736,236	$ 9,752,963	$ 8,769,691	$ 7,786,418	$ 6,803,146	
86.7500%	Cubic yards	867,500								
Operating Expenses			$ 54,241,886	$ 57,496,400	$ 60,946,184	$ 64,602,955	$ 68,479,132	$ 72,587,880	$ 76,943,153	
less Gypsum to On-site Landfill			$ (25,366,604)	$ (26,888,601)	$ (28,501,917)	$ (30,212,032)	$ (32,024,754)	$ (33,946,239)	$ (35,983,013)	
Gypsum to Sterling		**$ 10.50**	$ 29,970,561	$ 31,768,795	$ 33,674,922	$ 35,695,418	$ 37,837,143	$ 40,107,371	$ 42,513,814	
Net Operating			$ 58,845,843	$ 62,376,594	$ 66,119,189	$ 70,086,341	$ 74,291,521	$ 78,749,012	$ 83,473,953	
Annual Depreciation			$ 6,440,993	$ 6,440,993	$ 6,440,993	$ 6,440,993	$ 6,440,993	$ 6,440,993	$ 6,440,993	
Annual Property Tax Expense			$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	
Total OE			$ 65,753,346	$ 69,284,096	$ 73,026,692	$ 76,993,843	$ 81,199,024	$ 85,656,515	$ 90,381,456	
Total E(m) Gypsum to Sterling		$ 476,298,826	$ 78,456,126	$ 81,003,604	$ 83,762,928	$ 86,746,807	$ 89,968,715	$ 93,442,933	$ 97,184,602	$ 1,547,998,022
Total E(m) - Project 30 (See below)		$ 555,782,375	$ 81,476,372	$ 83,197,583	$ 85,114,065	$ 87,237,534	$ 89,580,409	$ 92,155,855	$ 94,977,826	$ 1,754,455,070
Difference	**PVRR**	**7.81% $ (79,483,549)**	$ (3,020,245)	$ (2,193,978)	$ (1,351,137)	$ (490,727)	$ 388,306	$ 1,287,079	$ 2,206,776	$ (206,457,048)
Date			12/31/2031	12/31/2032	12/31/2033	12/31/2034	12/31/2035	12/31/2036	12/31/2037	
										$ (206,457,048)

Revenue Requirments Summary
2009 Amended Plan
Project 30 Ghent Landfill Phase I
See Exhibit B

			2031	2032	2033	2034	2035	2036	2037
Revenue Requirement									
Eligible Plant			$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
Less Gypsum Plant			$ -	$ -	$ -	$ -	$ -	$ -	$ -
Revised Eligible Plant			$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
Less Accumulated Depreciation			$ (149,143,484)	$ (159,187,483)	$ (169,231,482)	$ (179,275,482)	$ (189,319,481)	$ (199,363,480)	$ (209,407,479)
Less Deferred Tax Balance			$ (58,404,588)	$ (62,337,818)	$ (66,271,048)	$ (70,204,279)	$ (74,137,509)	$ (78,070,739)	$ (82,003,969)
Environmental Compliance Rate Base			$ 152,451,928	$ 138,474,699	$ 124,497,469	$ 110,520,240	$ 96,543,010	$ 82,565,781	$ 68,588,552
Rate of Return			10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
			$ 16,723,976	$ 15,190,674	$ 13,657,372	$ 12,124,070	$ 10,590,768	$ 9,057,466	$ 7,524,164
Operating Expenses			$ 54,241,886.43	$ 57,496,399.62	$ 60,946,183.60	$ 64,602,954.61	$ 68,479,131.89	$ 72,587,879.80	$ 76,943,152.59
less Gypsum to On-site Landfill			$ -	$ -	$ -	$ -	$ -	$ -	$ -
Gypsum to Sterling			$ -	$ -	$ -	$ -	$ -	$ -	$ -
Net Operating			$ 54,241,886	$ 57,496,400	$ 60,946,184	$ 64,602,955	$ 68,479,132	$ 72,587,880	$ 76,943,153
Annual Depreciation			$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999
Annual Property Tax Expense			$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510
Total OE			$ 64,752,395	$ 68,006,908	$ 71,456,692	$ 75,113,463	$ 78,989,641	$ 83,098,389	$ 87,453,661
Total E(m) Gypsum to On-site Landfill as Calculated			$ 81,476,372	$ 83,197,583	$ 85,114,065	$ 87,237,534	$ 89,580,409	$ 92,155,855	$ 94,977,826
Total E(m) Gypsum to On-site Landfill per KU									
Calculation Check Difference									
Site E/F	Hauling cost of Ash 2.25 mile round trip		$ 8,057,009	$ 8,540,429	$ 9,052,855	$ 9,596,026	$ 10,171,788	$ 10,782,095	$ 11,429,021
	Haul Road Maintenance		$ 152,790	$ 161,957	$ 171,675	$ 181,975	$ 192,894	$ 204,467	$ 216,735
Total			$ 8,209,799	$ 8,702,387	$ 9,224,530	$ 9,778,002	$ 10,364,682	$ 10,986,563	$ 11,645,756
Reduce by 50% for Site M			$ 4,104,899	$ 4,351,193	$ 4,612,265	$ 4,889,001	$ 5,182,341	$ 5,493,281	$ 5,822,878
Difference	**PVRR**	**7.81% $ (21,865,903)**							

EXHIBIT E

GHENT LANDFILL (PHASE I)

Operating & Maintenance Costs ($)	2010	2011	2012	2013	2014	2015	2016	2017
Ground Water Sampling and Testing	14,045	14,888	15,781	16,728	17,731	18,795	19,923	21,118
Leachate Management	-	-	-	83,639	88,657	93,977	99,616	105,592
Surveying (As-builts)	16,292	17,270	18,306	19,404	20,569	21,803	23,111	24,497
Pump House Fly Ash and Bottom Ash Segregation	75,843	80,394	85,217	-	-	-	-	-
Dry Ash/Pyrites Handling System - Conveyor	-	-	-	2,161,234	2,290,908	2,428,363	2,574,065	2,728,509
Dry Gypsum Handling System	-	-	-	682,495	723,445	766,851	812,863	861,634
Leachate Pump House	15,169	16,079	17,043	18,066	19,150	20,299	21,517	22,808
Hauling Fly Ash and Bottom Ash to Landfill								
Loading	-	-	-	1,338,226	1,418,519	1,503,630	1,593,848	1,689,479
Phase 1 - 2.25 Mile Round Trip	-	-	-	2,822,723	2,992,087	3,171,612	3,361,909	3,563,623
Hauling Gypsum to Landfill								
Loading	-	-	-	1,746,384	1,851,167	1,962,237	2,079,972	2,204,770
Phase 1 - 2.25 Mile Round Trip	-	-	-	3,997,156	4,236,986	4,491,205	4,760,677	5,046,318
Landfilling Fly Ash and Bottom Ash	-	-	-	2,408,806	2,553,334	2,706,534	2,868,927	3,041,062
Landfilling Gypsum	-	-	-	3,143,492	3,332,101	3,532,027	3,743,949	3,968,586
Ash/Gypsum Placement QA/QC	-	-	-	54,198	57,450	60,897	64,551	68,424
Maintenance								
Landfills	-	-	-	301,101	319,167	338,317	358,616	380,133
Haul Roads	-	-	-	53,529	56,741	60,145	63,754	67,579
Dust Control	-	-	-	156,126	165,494	175,424	185,949	197,106
TOTAL	**121,349**	**128,630**	**136,348**	**19,003,308**	**20,143,507**	**21,352,117**	**22,633,244**	**23,991,239**

EXHIBIT F

GHENT LANDFILL (PHASE I)

Capital Expenditures ($ million)	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Total
Property Acquisition											
Disposal Site(s)	-	-	4.66	-	-	-	-	-	-	-	**4.66**
Overhead Electric Line(s)	-	-	0.03	-	-	-	-	-	-	-	**0.03**
Buffer Zones	-	-	-	-	2.37	-	-	-	-	-	**2.37**
Higher End House Acquisition	-	-	1.40	-	-	-	-	-	-	-	**1.40**
Engineering, Permits and Fees, and Construction Documents	0.46	2.00	-	-	-	-	-	-	-	-	**2.46**
Stream and Wetland Mitigation	-	-	4.14	-	-	-	-	-	-	-	**4.14**
Ground Water Monitoring System	-	0.27	-	-	-	-	-	-	-	-	**0.27**
Transmission Line Relocation Design, Engineering, and Construction	-	-	-	-	0.82	-	-	-	-	-	**0.82**
CCWD Relocation	-	-	0.12	-	-	-	-	-	-	-	**0.12**
Pump House Fly Ash and Bottom Ash Segregation	-	0.72	-	-	-	-	-	-	-	-	**0.72**
Dry Ash/Pyrites Handling System - Conveyor	-	-	16.29	27.08	38.93	-	-	-	-	-	**82.31**
Dry Gypsum Handling System	-	-	7.79	15.96	13.05	-	-	-	-	-	**36.80**
Gypsum Fines Project	-	0.74	6.30	6.30	-	-	-	-	-	-	**13.34**
Initial Site Preparation											
Clearing, Grubbing, and Site Preparation	-	-	-	0.62	0.65	0.69	-	-	-	-	**1.96**
Stripping and Stockpiling Soil	-	-	-	0.50	0.53	0.56	-	-	-	-	**1.58**
Hauling Topsoil - Phase 1 - 1.0 Mile Round Trip	-	-	-	0.19	0.20	0.21	-	-	-	-	**0.59**
Erosion and Sedimentation Controls	-	-	-	0.06	0.06	0.06	-	-	-	-	**0.18**
Sedimentation Pond	-	-	-	0.33	-	-	-	-	-	-	**0.33**
Collection Channels (Fabriform)	-	-	-	0.36	0.38	0.40	-	-	-	-	**1.15**
Diversion Channels (Riprap)	-	-	-	0.11	0.12	0.12	-	-	-	-	**0.35**
Liner Subgrade Preparation											
Scraping and Hauling - 0.25 Mile Round Trip	-	-	-	0.32	0.33	0.35	-	-	-	-	**1.01**
Excavating	-	-	-	0.15	0.16	0.17	-	-	-	-	**0.49**
Hauling Subgrade - Phase 1 - 1.0 Mile Round Trip	-	-	-	0.31	0.33	0.35	-	-	-	-	**0.99**
Spreading and Compacting Subgrade	-	-	-	0.49	0.52	0.55	-	-	-	-	**1.57**
Subgrade QA/QC	-	-	-	0.24	0.25	0.27	-	-	-	-	**0.76**
Gypsum Dewatering Facility Earthwork											
Excavating	-	-	-	0.73	-	-	-	-	-	-	**0.73**
Hauling Earth - 1.0 Mile Round Trip	-	-	-	1.53	-	-	-	-	-	-	**1.53**
Spreading and Compacting	-	-	-	1.21	-	-	-	-	-	-	**1.21**
Earthwork QA/QC	-	-	-	0.24	-	-	-	-	-	-	**0.24**

GHENT LANDFILL (PHASE I)

Capital Expenditures ($ million)	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Total
Haul Roads											
CCP Disposal On-Landfill Haul Road (60 Feet Wide)	-	-	-	-	0.61	0.05	0.05	0.05	0.05	0.06	**0.87**
CCP Disposal Off-Landfill Haul Road (60 Feet Wide)	-	-	-	0.30	1.03	-	-	-	-	-	**1.33**
Liner											
Landfill - Single Liner System	-	-	-	-	7.00	7.43	7.87	-	-	-	**22.30**
Liner System QA/QC	-	-	-	-	1.23	1.30	1.38	-	-	-	**3.90**
Leachate Collector Line	-	-	-	-	0.19	0.20	0.21	-	-	-	**0.60**
On-Landfill Leachate Trunk Line	-	-	-	-	0.08	0.08	0.09	-	-	-	**0.25**
Off-Landfill Leachate Trunk Line	-	-	-	-	0.07	-	-	-	-	-	**0.07**
Leachate Storage Pond	-	-	-	-	0.29	-	-	-	-	-	**0.29**
Leachate Pump House	-	-	-	-	0.09	-	-	-	-	-	**0.09**
Leachate Pipe Line	-	-	-	-	0.08	-	-	-	-	-	**0.08**
Underdrains - Trunk	-	-	-	-	0.17	0.18	0.19	-	-	-	**0.54**
Underdrains - Collector	-	-	-	-	0.11	0.12	0.12	-	-	-	**0.35**
Cap											
Intermediate Soil Cover	-	-	-	-	-	-	0.28	0.30	0.32	0.34	**1.24**
Cap System	-	-	-	-	-	-	0.22	0.23	0.25	0.26	**0.96**
Cap System QA/QC	-	-	-	-	-	-	0.03	0.03	0.03	0.03	**0.12**
Total	**0.46**	**3.72**	**40.73**	**57.01**	**69.65**	**13.10**	**10.44**	**0.62**	**0.65**	**0.69**	**197.07**
E.ON-US Overheads	0.02	0.13	1.43	2.00	2.44	0.46	0.37	0.02	0.02	0.02	**6.90**
Total with Overheads	**0.47**	**3.85**	**42.16**	**59.01**	**72.09**	**13.56**	**10.81**	**0.64**	**0.68**	**0.72**	**203.97**

EXHIBIT G

Revenue Requirments Summary
Gypsum Disposal at Sterling Materials

			2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Revenue Requirement													
Eligible Plant			$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 203,254,220	$ 203,969,979	$ 203,969,979	$ 248,969,979
Less Gypsum Plant			$ -	$ (14,090,000)	$ (40,060,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (98,110,000)
Revised Eligible Plant			$ 4,321,671	$ 32,388,846	$ 65,425,803	$ 124,467,356	$ 138,023,918	$ 148,831,953	$ 149,468,976	$ 150,144,220	$ 150,859,979	$ 150,859,979	$ 150,859,979
Less Accumulated Depreciation							$ (3,690,414)	$ (7,842,826)	$ (12,013,010)	$ (16,202,034)	$ (20,411,027)	$ (24,620,020)	$ (28,829,013)
Less Deferred Tax Balance							$ (528,683)	$ (2,857,926)	$ (4,921,730)	$ (6,731,945)	$ (8,301,165)	$ (9,641,200)	$ (11,289,441)
Environmental Compliance Rate Base			$ 4,321,671	$ 32,388,846	$ 65,425,803	$ 124,467,356	$ 133,804,821	$ 138,131,202	$ 132,534,236	$ 127,210,241	$ 122,147,788	$ 116,598,759	$ 110,741,525
Rate of Return			11.1%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
Assumed Tons (1.155)	1,000,000		$ 480,509	$ 3,553,056	$ 7,177,211	$ 13,654,069	$ 14,678,389	$ 15,152,993	$ 14,539,006	$ 13,954,963	$ 13,399,612	$ 12,790,884	$ 12,148,345
86.7500% Cubic yards	867,500												
Operating Expenses			$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,556
less Gypsum to On-site Landfill							$ (8,887,032)	$ (9,420,254)	$ (9,985,469)	$ (10,584,598)	$ (11,219,674)	$ (11,892,854)	$ (12,606,425)
Gypsum to Sterling	**$ 9.00**						$ 9,000,000	$ 9,540,000	$ 10,112,400	$ 10,719,144	$ 11,362,293	$ 12,044,030	$ 12,766,672
Net Operating			$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,116,276	$ 20,263,253	$ 21,479,048	$ 22,767,790	$ 24,133,858	$ 25,581,889	$ 27,116,803
Annual Depreciation							$ 3,690,414	$ 4,152,411	$ 4,170,184	$ 4,189,024	$ 4,208,993	$ 4,208,993	$ 4,208,993
Annual Property Tax Expense				$ 6,483	$ 69,718	$ 158,229	$ 266,366	$ 279,017	$ 286,798	$ 279,274	$ 271,751	$ 264,317	$ 264,317
Total OE			$ 84,800	$ 127,832	$ 198,348	$ 294,577	$ 23,073,056	$ 24,694,681	$ 25,936,030	$ 27,236,088	$ 28,614,602	$ 30,055,199	$ 31,590,112
Total E(m) Gypsum to Sterling		$ 453,492,164	$ 565,309	$ 3,680,888	$ 7,375,559	$ 13,948,646	$ 37,751,445	$ 39,847,674	$ 40,475,036	$ 41,191,051	$ 42,014,214	$ 42,846,083	$ 43,738,457
Total E(m) - Project 30 (See below)		$ 555,782,375	$ 565,309	$ 5,226,225	$ 11,769,378	$ 19,773,528	$ 44,705,239	$ 46,600,208	$ 46,976,843	$ 47,458,553	$ 48,044,547	$ 48,653,648	$ 55,312,476
Difference **PVRR**	**7.81%**	**$ (102,290,212)**	$ -	$ (1,545,337)	$ (4,393,819)	$ (5,824,882)	$ (6,953,794)	$ (6,752,534)	$ (6,501,807)	$ (6,267,502)	$ (6,030,333)	$ (5,807,565)	$ (11,574,019)
Date			12/31/2009	12/31/2010	12/31/2011	12/31/2012	12/31/2013	12/31/2014	12/31/2015	12/31/2016	12/31/2017	12/31/2018	12/31/2019

Revenue Requirments Summary
2009 Amended Plan
Project 30 Ghent Landfill Phase I
See Exhibit B

			2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
													Start Phase II
Revenue Requirement													$ 40,000,000
Eligible Plant			$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 203,254,220	$ 203,969,979	$ 203,969,979	$ 248,969,979
Less Gypsum Plant			$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Revised Eligible Plant			$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 203,254,220	$ 203,969,979	$ 203,969,979	$ 248,969,979
Less Accumulated Depreciation							$ (5,110,443)	$ (10,744,623)	$ (16,396,576)	$ (22,067,369)	$ (27,758,131)	$ (33,448,893)	$ (40,395,155)
Less Deferred Tax Balance							$ (732,114)	$ (3,915,341)	$ (6,717,677)	$ (9,168,992)	$ (11,289,232)	$ (13,098,586)	$ (15,818,743)
Environmental Compliance Rate Base			$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 185,291,361	$ 187,281,989	$ 179,464,723	$ 172,017,859	$ 164,922,616	$ 157,422,500	$ 192,756,081
Rate of Return			11.1%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
			$ 480,509	$ 5,098,729	$ 11,571,793	$ 19,480,236	$ 20,326,462	$ 20,544,834	$ 19,687,280	$ 18,870,359	$ 18,092,011	$ 17,269,248	$ 21,145,342
Operating Expenses			$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,555.78
less Gypsum to On-site Landfill							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Gypsum to Sterling							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Net Operating			$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,556
Annual Depreciation							$ 5,110,443	$ 5,634,180	$ 5,651,953	$ 5,670,793	$ 5,690,762	$ 5,690,762	$ 6,946,262
Annual Property Tax Expense				$ 6,483	$ 69,718	$ 158,229	$ 266,366	$ 279,017	$ 286,798	$ 279,274	$ 271,751	$ 264,317	$ 264,317
Total OE			$ 84,800	$ 127,832	$ 198,348	$ 294,577	$ 24,380,117	$ 26,056,704	$ 27,290,868	$ 28,583,311	$ 29,953,752	$ 31,385,792	$ 34,167,134
Total E(m) Gypsum to On-site Landfill as Calculated			$ 565,309	$ 5,226,561	$ 11,770,141	$ 19,774,813	$ 44,706,579	$ 46,601,539	$ 46,978,148	$ 47,453,670	$ 48,045,763	$ 48,655,040	$ 55,312,476
Total E(m) Gypsum to On-site Landfill per KU			$ 565,309	$ 5,226,225	$ 11,769,378	$ 19,773,528	$ 44,705,239	$ 46,600,208	$ 46,976,843	$ 47,458,553	$ 48,044,547	$ 48,653,648	
Calculation Check Difference			$ -	$ 336	$ 763	$ 1,285	$ 1,340	$ 1,331	$ 1,305	$ (4,883)	$ 1,216	$ 1,392	
Site E/F Hauling cost of Ash 2.25 mile round trip							$ 2,822,723	$ 2,992,086	$ 3,171,612	$ 3,361,908	$ 3,563,623	$ 3,777,440	$ 4,004,087
Haul Road Maintenance							$ 53,529	$ 56,741	$ 60,145	$ 63,754	$ 67,579	$ 71,634	$ 75,932
Total							$ 2,876,252	$ 3,048,827	$ 3,231,757	$ 3,425,662	$ 3,631,202	$ 3,849,074	$ 4,080,018
Reduce by 50% for Site M			$ -	$ -	$ -	$ -	$ 1,438,126	$ 1,524,414	$ 1,615,878	$ 1,712,831	$ 1,815,601	$ 1,924,537	$ 2,040,009
Difference **PVRR**	**7.81%**	**$ (21,865,903)**											

Revenue Requirments Summary
Gypsum Disposal at Sterling Materials

			2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
													Start Phase II
Revenue Requirement													$ 40,000,000
Eligible Plant			$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 323,969,979	$ 353,969,979	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
Less Gypsum Plant			$ (133,110,000)	$ (133,110,000)	$ (133,110,000)	$ (133,110,000)	$ (133,110,000)	$ (173,110,000)	$ (203,110,000)	$ (209,140,021)	$ (209,140,021)	$ (209,140,021)	$ (169,140,021)
Revised Eligible Plant			$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 190,859,979
Less Accumulated Depreciation			$ (33,038,006)	$ (37,246,999)	$ (41,455,992)	$ (45,664,985)	$ (49,873,978)	$ (54,082,972)	$ (58,291,965)	$ (62,500,958)	$ (66,709,951)	$ (70,918,944)	$ (76,243,937)
Less Deferred Tax Balance			$ (12,937,683)	$ (14,585,925)	$ (16,234,167)	$ (17,882,408)	$ (19,530,650)	$ (21,178,892)	$ (22,827,133)	$ (24,475,375)	$ (26,123,617)	$ (27,771,858)	$ (29,857,126)
Environmental Compliance Rate Base			$ 104,884,290	$ 99,027,055	$ 93,169,820	$ 87,312,585	$ 81,455,351	$ 75,598,116	$ 69,740,881	$ 63,883,646	$ 58,026,411	$ 52,169,177	$ 84,758,916
Rate of Return			10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
Assumed	Tons (1.155)	1,000,000	$ 11,505,807	$ 10,863,268	$ 10,220,729	$ 9,578,191	$ 8,935,652	$ 8,293,113	$ 7,650,575	$ 7,008,036	$ 6,365,497	$ 5,722,959	$ 9,298,053
86.7500%	Cubic yards	867,500											
Operating Expenses			$ 28,573,949	$ 30,288,386	$ 32,105,689	$ 34,032,031	$ 36,073,952	$ 38,238,390	$ 40,532,693	$ 42,964,655	$ 45,542,534	$ 48,275,086	$ 51,171,591
less Gypsum to On-site Landfill			$ (13,362,811)	$ (14,164,579)	$ (15,014,454)	$ (15,915,321)	$ (16,870,241)	$ (17,882,455)	$ (18,955,402)	$ (20,092,727)	$ (21,298,290)	$ (22,576,188)	$ (23,930,759)
Gypsum to Sterling	**$ 9.00**		$ 13,532,672	$ 14,344,633	$ 15,205,311	$ 16,117,629	$ 17,084,687	$ 18,109,768	$ 19,196,354	$ 20,348,136	$ 21,569,024	$ 22,863,165	$ 24,234,955
Net Operating			$ 28,743,811	$ 30,468,439	$ 32,296,546	$ 34,234,338	$ 36,288,399	$ 38,465,703	$ 40,773,645	$ 43,220,064	$ 45,813,267	$ 48,562,063	$ 51,475,787
Annual Depreciation			$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 5,324,993
Annual Property Tax Expense			$ 322,630	$ 367,985	$ 367,985	$ 367,985	$ 367,985	$ 367,985	$ 419,820	$ 458,696	$ 466,510	$ 466,510	$ 466,510
Total OE			$ 33,275,434	$ 35,045,418	$ 36,873,524	$ 38,811,317	$ 40,865,377	$ 43,042,681	$ 45,402,458	$ 47,887,752	$ 50,488,770	$ 53,237,566	$ 57,267,290
Total E(m) Gypsum to Sterling		$ 453,492,164	$ 44,781,241	$ 45,908,686	$ 47,094,253	$ 48,389,508	$ 49,801,029	$ 51,335,794	$ 53,053,032	$ 54,895,788	$ 56,854,267	$ 58,960,525	$ 66,565,343
Total E(m) - Project 30 (See below)		$ 555,782,375	$ 60,594,706	$ 61,145,021	$ 61,752,847	$ 62,469,712	$ 63,302,156	$ 69,590,749	$ 74,557,268	$ 76,324,534	$ 77,376,925	$ 78,576,175	$ 79,939,378
Difference	**PVRR**	**7.81% $ (102,290,212)**	$ (15,813,466)	$ (15,236,335)	$ (14,658,594)	$ (14,080,204)	$ (13,501,127)	$ (18,254,955)	$ (21,504,236)	$ (21,428,746)	$ (20,522,658)	$ (19,615,651)	$ (13,374,035)
Date			12/31/2020	12/31/2021	12/31/2022	12/31/2023	12/31/2024	12/31/2025	12/31/2026	12/31/2027	12/31/2028	12/31/2029	12/31/2030

Revenue Requirments Summary
2009 Amended Plan
Project 30 Ghent Landfill Phase I
See Exhibit B

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
						Start Phase III					
Revenue Requirement	$ 40,000,000					$ 40,000,000	$ 30,000,000	$ 6,030,021			
Eligible Plant	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 323,969,979	$ 353,969,979	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
Less Gypsum Plant	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Revised Eligible Plant	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 323,969,979	$ 353,969,979	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
Less Accumulated Depreciation	$ (48,317,917)	$ (56,240,679)	$ (64,163,440)	$ (72,086,202)	$ (80,008,964)	$ (89,047,726)	$ (98,923,488)	$ (108,967,487)	$ (119,011,486)	$ (129,055,485)	$ (139,099,485)
Less Deferred Tax Balance	$ (18,921,296)	$ (22,023,850)	$ (25,126,403)	$ (28,228,957)	$ (31,331,510)	$ (34,871,089)	$ (38,738,438)	$ (42,671,668)	$ (46,604,898)	$ (50,538,128)	$ (54,471,358)
Environmental Compliance Rate Base	$ 216,730,766	$ 205,705,451	$ 194,680,135	$ 183,654,820	$ 172,629,505	$ 200,051,164	$ 216,308,054	$ 208,360,845	$ 194,383,616	$ 180,406,387	$ 166,429,157
Rate of Return	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
	$ 23,775,365	$ 22,565,888	$ 21,356,411	$ 20,146,934	$ 18,937,457	$ 21,945,613	$ 23,728,993	$ 22,857,185	$ 21,323,883	$ 19,790,581	$ 18,257,279
Operating Expenses	$ 28,573,949.13	$ 30,288,386.07	$ 32,105,689.24	$ 34,032,030.59	$ 36,073,952.43	$ 38,238,389.57	$ 40,532,692.95	$ 42,964,654.53	$ 45,542,533.80	$ 48,275,085.83	$ 51,171,590.97
less Gypsum to On-site Landfill	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Gypsum to Sterling	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Net Operating	$ 28,573,949	$ 30,288,386	$ 32,105,689	$ 34,032,031	$ 36,073,952	$ 38,238,390	$ 40,532,693	$ 42,964,655	$ 45,542,534	$ 48,275,086	$ 51,171,591
Annual Depreciation	$ 7,922,762	$ 7,922,762	$ 7,922,762	$ 7,922,762	$ 7,922,762	$ 9,038,762	$ 9,875,762	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999
Annual Property Tax Expense	$ 322,630	$ 367,985	$ 367,985	$ 367,985	$ 367,985	$ 419,820	$ 458,696	$ 466,510	$ 466,510	$ 466,510	$ 466,510
Total OE	$ 36,819,341	$ 38,579,133	$ 40,396,436	$ 42,322,778	$ 44,364,700	$ 47,645,137	$ 50,828,274	$ 53,467,349	$ 56,053,043	$ 58,785,595	$ 61,682,100
Total E(m) Gypsum to On-site Landfill as Calculated	$ 60,594,706	$ 61,145,021	$ 61,752,847	$ 62,469,712	$ 63,302,156	$ 69,590,749	$ 74,557,268	$ 76,324,534	$ 77,376,925	$ 78,576,175	$ 79,939,378
Total E(m) Gypsum to On-site Landfill per KU											
Calculation Check Difference											
Site E/F Hauling cost of Ash 2.25 mile round trip	$ 4,244,332	$ 4,498,992	$ 4,768,931	$ 5,055,067	$ 5,358,371	$ 5,679,873	$ 6,020,666	$ 6,381,906	$ 6,764,820	$ 7,170,709	$ 7,600,952
Haul Road Maintenance	$ 80,488	$ 85,317	$ 90,436	$ 95,862	$ 101,614	$ 107,711	$ 114,174	$ 121,024	$ 128,285	$ 135,982	$ 144,141
Total	$ 4,324,820	$ 4,584,309	$ 4,859,367	$ 5,150,929	$ 5,459,985	$ 5,787,584	$ 6,134,839	$ 6,502,930	$ 6,893,105	$ 7,306,692	$ 7,745,093
Reduce by 50% for Site M	$ 2,162,410	$ 2,292,154	$ 2,429,684	$ 2,575,465	$ 2,729,993	$ 2,893,792	$ 3,067,420	$ 3,251,465	$ 3,446,553	$ 3,653,346	$ 3,872,547

Difference **PVRR** **7.81% $ (21,865,903)**

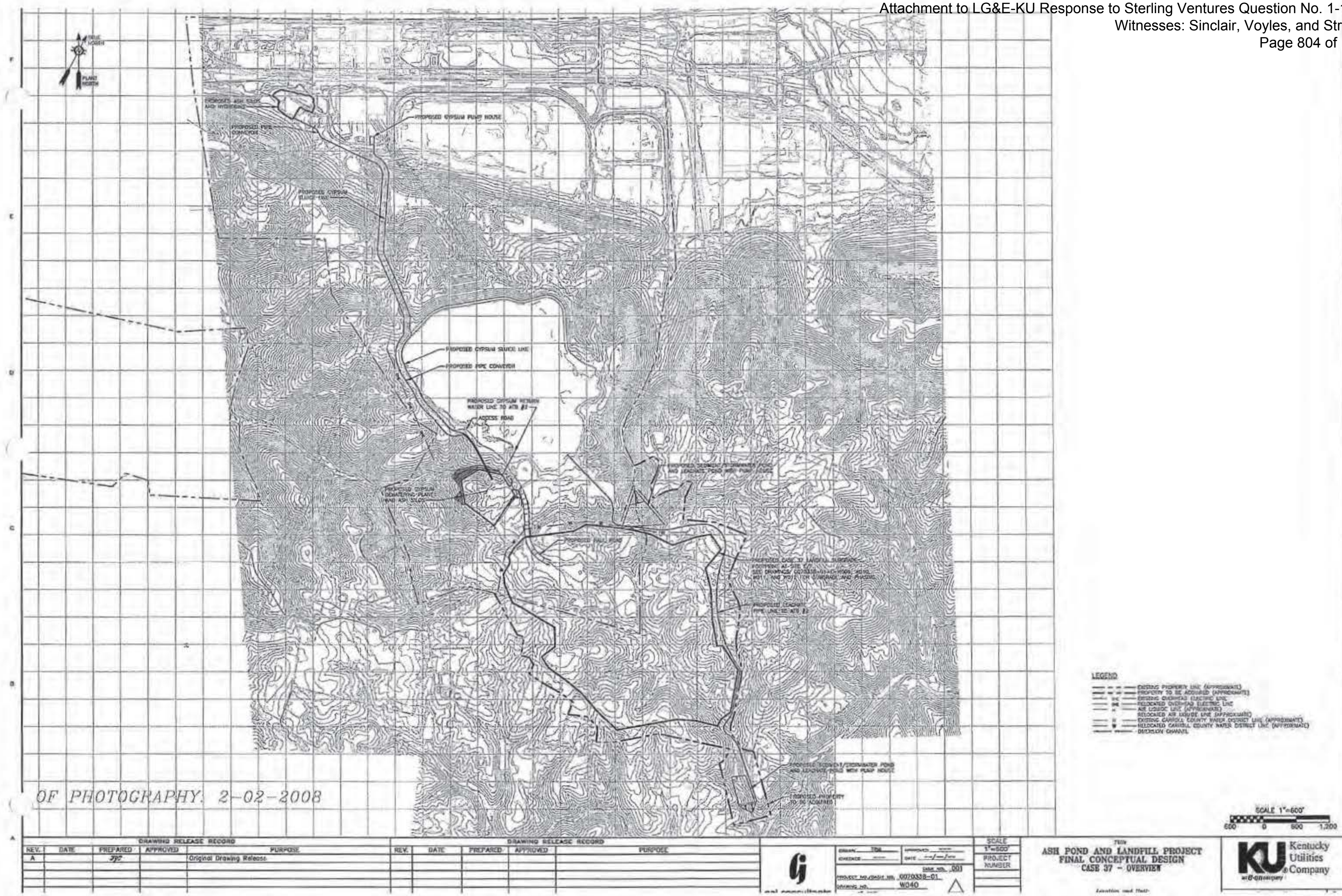
Revenue Requirments Summary
Gypsum Disposal at Sterling Materials

			2031	2032	2033	2034	2035	2036	2037	
Revenue Requirement			$ 40,000,000							
Eligible Plant			$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	
Less Gypsum Plant			$ (129,140,021)	$ (129,140,021)	$ (129,140,021)	$ (129,140,021)	$ (129,140,021)	$ (129,140,021)	$ (129,140,021)	
Revised Eligible Plant			$ 230,859,979	$ 230,859,979	$ 230,859,979	$ 230,859,979	$ 230,859,979	$ 230,859,979	$ 230,859,979	
Less Accumulated Depreciation			$ (82,684,930)	$ (89,125,923)	$ (95,566,916)	$ (102,007,909)	$ (108,448,902)	$ (114,889,895)	$ (121,330,888)	
Less Deferred Tax Balance			$ (32,379,419)	$ (34,901,711)	$ (37,424,004)	$ (39,946,297)	$ (42,468,590)	$ (44,990,883)	$ (47,513,176)	
Environmental Compliance Rate Base			$ 115,795,631	$ 106,832,345	$ 97,869,059	$ 88,905,773	$ 79,942,487	$ 70,979,202	$ 62,015,916	
Rate of Return			10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	
Assumed	Tons (1.155)	1,000,000	$ 12,702,781	$ 11,719,508	$ 10,736,236	$ 9,752,963	$ 8,769,691	$ 7,786,418	$ 6,803,146	
86.7500%	Cubic yards	867,500								
Operating Expenses			$ 54,241,886	$ 57,496,400	$ 60,946,184	$ 64,602,955	$ 68,479,132	$ 72,587,880	$ 76,943,153	
less Gypsum to On-site Landfill			$ (25,366,604)	$ (26,888,601)	$ (28,501,917)	$ (30,212,032)	$ (32,024,754)	$ (33,946,239)	$ (35,983,013)	
Gypsum to Sterling		**$ 9.00**	$ 25,689,052	$ 27,230,396	$ 28,864,219	$ 30,596,072	$ 32,431,837	$ 34,377,747	$ 36,440,412	
Net Operating			$ 54,564,334	$ 57,838,194	$ 61,308,486	$ 64,986,995	$ 68,886,215	$ 73,019,388	$ 77,400,551	
Annual Depreciation			$ 6,440,993	$ 6,440,993	$ 6,440,993	$ 6,440,993	$ 6,440,993	$ 6,440,993	$ 6,440,993	
Annual Property Tax Expense			$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	
Total OE			$ 61,471,837	$ 64,745,697	$ 68,215,989	$ 71,894,498	$ 75,793,718	$ 79,926,890	$ 84,308,054	
Total E(m) Gypsum to Sterling		$ 453,492,164	$ 74,174,618	$ 76,465,205	$ 78,952,224	$ 81,647,461	$ 84,563,408	$ 87,713,309	$ 91,111,200	$ 1,465,701,254
Total E(m) - Project 30 (See below)		$ 555,782,375	$ 81,476,372	$ 83,197,583	$ 85,114,065	$ 87,237,534	$ 89,580,409	$ 92,155,855	$ 94,977,826	$ 1,754,455,070
Difference	**PVRR**	**7.81% $ (102,290,212)**	$ (7,301,754)	$ (6,732,378)	$ (6,161,840)	$ (5,590,073)	$ (5,017,001)	$ (4,442,546)	$ (3,866,626)	$ (288,753,816)
Date			12/31/2031	12/31/2032	12/31/2033	12/31/2034	12/31/2035	12/31/2036	12/31/2037	
										$ (288,753,816)

Revenue Requirments Summary
2009 Amended Plan
Project 30 Ghent Landfill Phase I
See Exhibit B

			2031	2032	2033	2034	2035	2036	2037
Revenue Requirement									
Eligible Plant			$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
Less Gypsum Plant			$ -	$ -	$ -	$ -	$ -	$ -	$ -
Revised Eligible Plant			$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
Less Accumulated Depreciation			$ (149,143,484)	$ (159,187,483)	$ (169,231,482)	$ (179,275,482)	$ (189,319,481)	$ (199,363,480)	$ (209,407,479)
Less Deferred Tax Balance			$ (58,404,588)	$ (62,337,818)	$ (66,271,048)	$ (70,204,279)	$ (74,137,509)	$ (78,070,739)	$ (82,003,969)
Environmental Compliance Rate Base			$ 152,451,928	$ 138,474,699	$ 124,497,469	$ 110,520,240	$ 96,543,010	$ 82,565,781	$ 68,588,552
Rate of Return			10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
			$ 16,723,976	$ 15,190,674	$ 13,657,372	$ 12,124,070	$ 10,590,768	$ 9,057,466	$ 7,524,164
Operating Expenses			$ 54,241,886.43	$ 57,496,399.62	$ 60,946,183.60	$ 64,602,954.61	$ 68,479,131.89	$ 72,587,879.80	$ 76,943,152.59
less Gypsum to On-site Landfill			$ -	$ -	$ -	$ -	$ -	$ -	$ -
Gypsum to Sterling			$ -	$ -	$ -	$ -	$ -	$ -	$ -
Net Operating			$ 54,241,886	$ 57,496,400	$ 60,946,184	$ 64,602,955	$ 68,479,132	$ 72,587,880	$ 76,943,153
Annual Depreciation			$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999
Annual Property Tax Expense			$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510
Total OE			$ 64,752,395	$ 68,006,908	$ 71,456,692	$ 75,113,463	$ 78,989,641	$ 83,098,389	$ 87,453,661
Total E(m) Gypsum to On-site Landfill as Calculated			$ 81,476,372	$ 83,197,583	$ 85,114,065	$ 87,237,534	$ 89,580,409	$ 92,155,855	$ 94,977,826
Total E(m) Gypsum to On-site Landfill per KU									
Calculation Check Difference									
Site E/F	Hauling cost of Ash 2.25 mile round trip		$ 8,057,009	$ 8,540,429	$ 9,052,855	$ 9,596,026	$ 10,171,788	$ 10,782,095	$ 11,429,021
	Haul Road Maintenance		$ 152,790	$ 161,957	$ 171,675	$ 181,975	$ 192,894	$ 204,467	$ 216,735
Total			$ 8,209,799	$ 8,702,387	$ 9,224,530	$ 9,778,002	$ 10,364,682	$ 10,986,563	$ 11,645,756
Reduce by 50% for Site M			$ 4,104,899	$ 4,351,193	$ 4,612,265	$ 4,889,001	$ 5,182,341	$ 5,493,281	$ 5,822,878
Difference	**PVRR**	**7.81% $ (21,865,903)**							

EXHIBIT H


PROPOSED GYPSUM PUMP HOUSE
PROPOSED GYPSUM SLUICE LINE
PROPOSED PIPE CONVEYOR
ACCESS ROAD
PROPOSED HAUL ROAD
OF PHOTOGRAPHY: 2-02-2008
LEGEND
SCALE 1"=600'
600 0 600 1,200
DRAWING RELEASE RECORD
REV. DATE PREPARED APPROVED PURPOSE
A Original Drawing Release
SCALE 1"=600'
PROJECT NUMBER
PROJECT NO./DASH NO. 0070338-01
DRAWING NO. W040
ASH POND AND LANDFILL PROJECT
FINAL CONCEPTUAL DESIGN
CASE 37 - OVERVIEW
Kentucky Utilities Company

From: John Walters(johnwalters@sterlingventures.com)
To: Tapp Sr., Kenny (Electric)
CC:
BCC:
Subject: Ghent
Sent: 07/20/2010 02:13:47 PM -0400 (EDT)
Attachments: ArchiveInfo.htm;

Kenny

I inadvertently omitted Exhibit A when I forwarded you the proposal yesterday. Attached is the proposal including Exhibit A.

John

John W. Walters, Jr.
Sterling Ventures, LLC
376 South Broadway
Lexington, KY 40508
Phone (859) 259-9600
Fax (859) 259-9601
johnwalters@sterlingventures.com

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The following attachments were archived from this message:

- 20100720140938271.pdf

From: John Walters(johnwalters@sterlingventures.com)
To: Tapp Sr., Kenny (Electric)
CC:
BCC:
Subject: Gypsum Disposal
Sent: 11/22/2010 02:10:40 PM -0500 (EST)
Attachments: ArchiveInfo.htm;

Kenny

Attached is the Permit allowing Sterling to receive gypsum from Ghent. Let me know the next steps to moving forward.

John

John W. Walters, Jr.
Sterling Ventures, LLC
376 South Broadway
Lexington, KY 40508
Phone (859) 259-9600
Fax (859) 259-9601
johnwalters@sterlingventures.com

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The following attachments were archived from this message:

- Sterling Ventures Approval letter 11-19-10.pdf
- Sterling Ventures Permit 11-19-2010.pdf

From: Smith, Timothy (Trimble)(/O=LGE/OU=LOUISVILLE/CN=RECIPIENTS/CN=E008722)
To: Pfeiffer, Caryl; Joyce, Jeff; Tapp Sr., Kenny (Electric); Gilbert, Bill G.; Dotson, Mike; Puckett, Paul
CC:
BCC:
Subject: RE: Ghent Gyspum Disposal
Sent: 09/20/2011 03:02:44 PM -0400 (EDT)
Attachments:

Alex Boone, President of Sterling Materials showed up at the plant today and wanted permission to drive around our ash/gypsum facilities. The guard gate called me and I told him we would require a KU representative to be with him and that we didn't have anyone available right now. He said he would just come back another time.

I reviewed their proposal and found it to be full of inaccurate assumptions in how they calculated their $100M savings.

Also, their pricing for storage is also still too high. They want us to pay them $5.50/ton plus pay the $650k to develop a shaft at their mine plus us to be responsible for reclaiming, dewatering, loading and trucking of the material which could very easily take the total price well over the $10.50 ton that they suggest.

Thanks
Tim

From: Pfeiffer, Caryl
Sent: Monday, September 19, 2011 1:41 PM
To: Smith, Timothy; Joyce, Jeff; Tapp Sr., Kenny (Electric); Gilbert, Bill G.; Dotson, Mike; Puckett, Paul
Subject: RE: Ghent Gyspum Disposal

Are we going to get a meeting or conference call together to discuss this?

From: John Walters [mailto:johnwalters@sterlingventures.com]
Sent: Tuesday, September 13, 2011 5:15 PM
To: Smith, Timothy; Joyce, Jeff; Pfeiffer, Caryl; Tapp Sr., Kenny (Electric); Gilbert, Bill G.; Dotson, Mike; Puckett, Paul
Cc: Alex Boone
Subject: Ghent Gyspum Disposal

Please see attached

John W. Walters, Jr.
Sterling Ventures, LLC
376 South Broadway
Lexington, KY 40508
Phone (859) 259-9600
Cell 859-621-3990
Fax (859) 259-9601
johnwalters@sterlingventures.com

From: Pfeiffer, Caryl(/O=LGE/OU=LOUISVILLE/CN=RECIPIENTS/CN=E012383)
To: Billiter, Delbert
CC:
BCC:
Subject: FW: Ghent Gyspum Disposal
Sent: 09/22/2011 09:23:48 AM -0400 (EDT)
Attachments:

From: Smith, Timothy
Sent: Tuesday, September 20, 2011 3:03 PM
To: Pfeiffer, Caryl; Joyce, Jeff; Tapp Sr., Kenny (Electric); Gilbert, Bill G.; Dotson, Mike; Puckett, Paul
Subject: RE: Ghent Gyspum Disposal

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Cc: Alex Boone
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Ghent Station: Analysis of Off-Site Gypsum Storage Proposal

PPL companies

Generation Planning & Analysis
February 24, 2012

1 Background

In the June 2009 ECR filing, several alternatives were considered for storing coal combustion residuals (CCR) at the Ghent Station over the next 25 years. The least-cost alternative included (a) the construction of an on-site landfill to store ash and gypsum and (b) a short-term agreement with Trans Ash to move CCR offsite until new landfill capacity became available in 2013. After the ECR filing, the EPA issued new CCR rules and Trans Ash's storage facility was no longer considered to be an approved structural fill. In 2010, after updating its forecast of CCR production, the Company learned that the short-term need for off-site ash storage had been eliminated and that the short-term need for offsite gypsum storage had been reduced to 0.1 million cubic yards (MCY). Sterling Ventures (Sterling) was identified as a potential alternative for storing the gypsum but no agreement was ultimately reached. Based on the Company's most recent CCR production forecast, the short-term need for offsite gypsum storage no longer exists. In late 2011, Sterling Ventures submitted a new proposal for storing gypsum.

2 Sterling Proposal

Sterling has proposed to store all gypsum from the Ghent Station (net of sales to CertainTeed) in its offsite storage facility for $10.95/ton. Per the proposal, Sterling will excavate, load, and haul gypsum from the existing gypsum stack at the Ghent station. In doing this, Sterling claims that the Company can defer the need for subsequent landfill phases and avoid approximately $53 million in capital costs for a dry gypsum handling system, gypsum fines project, and gypsum dewatering facility. In addition, by eliminating the need to store gypsum altogether, Sterling claims that Company can realize further capital savings by reverting to a CCR storage alternative from the 2009 ECR filing that included a smaller landfill located closer to the Ghent station. Finally, in addition to its proposal for storing gypsum, Sterling has proposed to backhaul high calcium limestone to the Ghent station for $6.50/ton. See Attachment 1 for the Sterling Ventures proposal.

3 Analysis of Sterling Proposal

The Company considered the Sterling proposal as an alternative to its current plan. Due to the costs and risks associated with operating a gypsum stack, the Company plans to retire the gypsum stack when the new landfill is in service. Therefore, contrary to Sterling's claims, Sterling will not be able to take gypsum from the existing gypsum stack and the Company will not be able to avoid the capital costs for the dry gypsum handling system, gypsum fines project, and gypsum dewatering facility. In addition, selecting a different landfill alternative at the Ghent station is not a viable option because this would require new environmental permits and delay the project by two years.

Table 1 contains a summary of the assumptions used in this analysis. The Sterling proposal defers the need for Phase II of the currently proposed landfill and eliminates the need for Phase III of the landfill altogether. Because gypsum comprises 60% of all CCR, Phases I and II of the landfill with the Sterling proposal have seven more years of landfill capacity than all phases of the landfill without the Sterling proposal. With the Sterling proposal, gypsum is dewatered at the station and transported by Sterling to

an offsite storage facility for $10.95/ton. With the Company's current plan, gypsum with the same moisture content is delivered to the landfill for $4.43/ton.

Table 1 – Summary of Assumptions ($2013)

	Landfill Only	Landfill w/ Sterling Ventures Proposal
In-Service Year/Capacity of Phase I	2013 / 14.3 MCY	2013 / 14.3 MCY
In-Service Year/Capacity of Phase II	2022 / 14.5 MCY	2028 /14.5 MCY
In-Service Year/Capacity of Phase III	2031 / 23.0 MCY	N/A
Landfill End of Service Year	2046	2053
Dewatering Cost (all CCR)	$112,200 per month	$112,200 per month
Sterling Transport and Storage Cost	N/A	$10.95/wet ton
Cost to Place CCR in Landfill	$4.43/wet ton	$4.43/wet ton

The results of this analysis are summarized in Table 2. The levelized cost per cubic yard of CCR placed (either in the landfill or transported to an offsite storage facility) is lower in the Company's current plan; the savings in the Sterling proposal associated with deferring or eliminating the need for landfill phases are more than offset by the higher variable costs of transporting gypsum to an offsite storage facility.

Table 2 – Analysis Results

	Landfill Only	Landfill w/ Sterling Ventures Proposal
Net Present Value Revenue Requirements (NPVRR, $Millions)		
Capital	348	297
O&M	169	313
Total	517	610
Levelized NPVRR/CY (Dollars)	$24.51	$27.63

Sterling's cost to transport and store gypsum is $10.95/wet ton. This cost must decrease to $7.50/wet ton to break even with the Company's current proposal.

Concerning the option to purchase limestone from Sterling, Ghent's current cost of limestone is higher than $6.50/ton. If the savings in limestone costs are credited to the Sterling proposal, the Sterling proposal compares more favorably to the Company's current proposal, but the Company's current proposal is still least-cost. With the limestone option, Sterling's 'break-even' cost increases from $7.50/wet ton to $8.75/wet ton.

STERLING
VENTURES

September 13, 2011

Mr. Jeff Joyce
Mr. Timothy Smith
LG&E and KU-Ghent Station
9485 HWY 42 East
Ghent, KY 41045

Ms. Caryl Pfeiffer VIA E-mail
Mr. Kenny Tapp
Mr. Mike Dotson
Mr. Bill Gilbert
Mr. Paul Puckett
LG&E and KU
220 West Main Street
P.O. Box 32010
Louisville, KY 40202

Re: FGD Gypsum Disposal - Ghent Generating Station

Dear Ms. Pfeiffer and Gentlemen:

We have recently met with Tim Smith at Ghent Station to renew discussions concerning the possibility of Sterling Materials disposing of excess FGD Gypsum from the gypsum stacking facility at the Ghent Generating Station. We were unable to reach an agreement last year on gypsum disposal, presumably based on our proposed pricing.

Our pricing was in part based upon a requirement for a minimum tonnage of gypsum in order to cover the cost of Sterling having to install a gypsum access shaft to access our underground mine. The gypsum access shaft is preferable to trucking the gypsum underground, which we considered cost prohibitive. We proposed to Tim that if Ghent was interested in paying for the cost of the gypsum access shaft (which we estimated to be approximately $650,000) we would be willing to enter into an agreement that would give Ghent the right to dispose of its stacking pond gypsum in Sterling's mine. LGE/KU would be responsible for all loading and trucking fees. Sterling's charge in this scenario would be $5.50 per ton, subject to the terms of a final agreement. The $5.50 would be reduced by $1.00 for a period of 18 months in order to encourage early gypsum disposal, and allow you to recoup the cost of the gypsum access shaft.

As we discussed last year, Sterling is interested in not only handling the initial 1,500,000 tons of gypsum from the stacking facility, but also in receiving 100% of Ghent's excess FGD

gypsum for the life of the power plant. Attached is a comparative analysis of the PVRR cost difference between your current plan of placing all CCP's in a new landfill, and placing all gypsum at Sterling, with only ash going into your new landfill. The attached comparative analysis is based upon the capital construction cost and O&M cost you provided to the Kentucky Public Service Commission. Our attached analysis indicates that disposal of gypsum at Sterling could be the least cost PVRR alternative by at least $79,000,000, and possibly over $100,000,000 if scrubber limestone is purchased from Sterling and backhauled to the plant.

Obviously, we have necessarily made some assumptions in the attached comparative analysis, and we would like to meet with you again to discuss our analysis and assumptions, and to answer any questions you may have. We believe there are significant savings to you and your customers as reflected in the attached.

In addition, as we have previously discussed, we also have an underground limestone mine in Jessamine County near E.W. Brown. We met last week with Ron Gruzesky at The Kentucky Division of Solid Waste, and, based on that meeting, are planning to submit an application to permit our Jessamine County mine as a special waste landfill to receive all CCPs. Hopefully, there is the possibility of significant savings to you at Brown as well.

When you have a chance, give me or John Walters a call and we can discuss the above, and plan and how to move forward.

Sincerely,

Samuel A.B. Boone

GHENT STATION ALTERNATIVE FOR CCP/GYPSUM DISPOSAL

Background

Sterling Materials is an active underground limestone mine located in Verona, Kentucky, approximately 20 miles from Kentucky Utilities Company's Ghent Station. Sterling currently mines between 1,000,000 and 1,600,000 tons of limestone per year, and has been in operation since 2000.

In addition to producing limestone for the general aggregate construction market, Sterling also mines high calcium limestone for Mississippi Lime Company for use in Mississippi Lime's kiln located on Sterling's property. This high calcium limestone is also suitable for use as scrubber stone in Ghent's limestone FGD scrubber system.

In November 2010, Sterling obtained a Special Waste Permit from the Kentucky Department of Environmental Protection, Division of Waste Management allowing disposal of FGD gypsum in Sterling's mine.

KU has proposed building a new landfill at Ghent in three phases for an estimated total cost of $360,000,000 to handle the plant's three coal combustion by-products ("CCPs") through 2037[1]. KU forecasted the following wet storage CCP production volumes for Ghent Station (Cubic Yards):

Year	Fly Ash	Bottom Ash	Gypsum
2009	540,000	140,000	880,000
2010	550,000	150,000	1,090,000
2011	580,000	150,000	1,120,000
2012	550,000	150,000	1,060,000
2013	550,000	150,000	1,090,000

Source: Coal Combustion Byproduct Plan for Ghent Station dated June 2009 (the "Ghent CCP Plan" attached as Exhibit A)

Ghent's FGD gypsum is currently placed in a wet gypsum stacking pond. Ghent also has a contract to supply CertainTeed, Inc. with gypsum, and KU has estimated that CertainTeed will purchase approximately 222,000 cubic yards per year of gypsum from Ghent. As a result, Ghent will be required to continue diverting a portion of its gypsum production to the gypsum stacking pond.

The Ghent CCP Plan outlines KU's comparative analysis of the various alternatives to reach the least cost PVRR of disposing of Ghent's CCPs. One of the alternatives considered was off-site disposal at Valley View Landfill near Sulfer, Kentucky, approximately 25 miles from Ghent Station.[2] Disposal at Valley View was however dismissed because of the high cost of loading, hauling and landfill tipping fees.[3] Although, KU has redacted from public view the cost associated with the Valley View disposal alternative, based on

[1] Phase I cost thru 2018 of $203,969,979 as set forth in Revenue Requirement Summary for Project 30 – Ghent Landfill Phase I attached as Exhibit B. Total project capital cost estimated to be $360,000,000 per direct testimony of John Voyles before the Kentucky Public Service Commission in Case No. 2009-00197 attached as Exhibit C.
[2] Ghent CCP Plan, footnote 14, page 10.
[3] Supra at page 19.

other information contained in information provided to the KY PSC, it is estimated that the projected cost for disposal at Valley View in 2009 was approximately $29.65 per ton.[4]

Alternative Proposal for Gypsum Disposal at Sterling Materials' Mine

Sterling Materials is proposing that Ghent send all of its gypsum production (net of sales CertainTeed) to Sterling mine for disposal, with Ghent's ash being disposed of in either the new landfill as proposed on Site E/F, or in a new landfill located at Site M as considered by Case 14/28 in the Ghent CCP Plan (See page 18-19). Sterling estimates that the PVRR cost of this alternative is at least $79,000,000 less than KU's proposal for a new landfill at Site E/F, as set forth in Exhibit D.

Assumptions in Exhibit D analysis

1. Total price for loading, hauling and fees to Sterling Materials of $10.95 in 2013.
2. Net CCP production of approximately 868,000 cubic yards (1,090,000 – 222,000 to CertainTeed).
3. Cubic yards to ton conversion factor – cy x 1.155 (based on Trans Ash conversion assumption of 1.3 MCY equals 1.5 million tons as hauled - see page 10 of Ghent CCP Plan).
4. Reduce Phase I construction cost by $53,110,000[5] by continuing to place gypsum temporarily in existing gypsum stacking pond until shipment to Sterling.
   - Dry Gypsum Handling System $36,800,000
   - Gypsum Fines Project $12,600,000
   - Gypsum Dewatering Facility Earthwork $ 3,710,000
5. Phase III landfill construction cost eliminated. Phase II construction delayed from 2018 to 2030.
   - Phase I capacity – 14.7 MCY (See Ghent CCP Plan page 12)
   - Ash Production – 700,000 MCY (See Ghent CCP Plan page 7)
   - Phase I life until full – 21 years
6. Total Phase II and III construction costs - $156,030,021 (see Footnote 1)
   - Phase II construction cost - $80,000,000
   - Phase III construction cost - $76,030,021
7. Eliminate following Ghent Landfill Operating Expenses (See Ghent Landfill Operating Expenses - Phase I attached as Exhibit F)
   - Dry Gypsum Handling System
   - Hauling Gypsum to Landfill
     - Loading
     - Phase I-2.25 mile round trip
     - Landfilling Gypsum
8. Continue 2018 Annual Depreciation Rate of 2.7899% on Eligible Capital through 2037
9. Continue 2018 Property Tax Expense Rate of .1259% on Eligible Capital through 2037
10. Apply KU O&M Escalation Rate of 6% (See Ghent CCP Plan page 22)

[4] Total beneficial reuse cost of approximately $8,900,000 for 1,500,000 tons of Gypsum to Trans Ash, Inc. equals $5.93/ton (See Comprehensive Strategy for Management of Coal Combustion Byproducts – June 2009), which is almost 80% less than per unit volume basis than disposal at Valley View. (Ghent CCP Plan at pages 18 and 20).
[5] See Ghent Landfill Capital Expenditures Phase I attached as Exhibit E.

Purchase of Scrubber Stone from Sterling

Sterling Materials mines a high calcium seam of limestone in its 2nd and 3rd levels that will meet, and possibly exceed, Ghent's calcium specifications for scrubber stone. Based on general industry knowledge, without verification, it is believed that Ghent's current cost of scrubber stone FOB plant is approximately $8.00.

The proposed price of 10.50 for gypsum disposal at Sterling includes $4.50 per ton for transportation, based upon an assumed round trip turn of 1.5 hours, and $75.00 per hour to haul 25 tons.

Sterling is proposing to sell high calcium limestone to Ghent for $6.50 per ton and backhauling the stone to Ghent. If a $1.50 per ton trucking fee is assigned to the transportation of the limestone, Ghent will incur no additional cost for it scrubber stone. However, reducing the transportation component of the gypsum disposal cost by $1.50 reduces the proposed disposal cost from $10.50 to $9.00 per ton, and correspondingly increases the PVRR saving advantage from approximately $79,000,000 to over $100,000,000. (See Exhibit G).

Construct Ash Storage Pond at Site M

Although KU has redacted from public view information provided to the Kentucky PSC on the cost associated with an ash landfill on Site M, it would generally appear that using Site M as an ash landfill verses Site E/F would substantially reduce ash disposal cost and further increase the PVRR saving from disposing all of Ghent's gypsum at Sterling.

Site M is substantially closer to Ghent than Site E/F (Ghent CCP Plan page 12 and Exhibit H). The estimated cost of hauling fly and bottom ash to Site E/F is $2,822,723 in 2013, and the corresponding haul Road maintenance cost is $53,529. Even reducing those costs by a modest 50% for the haul to Site M verses site E/F would produce another $21,800,000 in PVRR savings compared to CCP disposal at Ghent under Project 30.

EXHIBIT A

Coal Combustion Byproduct Plan for Ghent Station For

Subsidiaries
Kentucky Utilities and
Louisville Gas and Electric

June 2009

CONFIDENTIAL INFORMATION REDACTED

1. Executive Summary

Kentucky Utilities Company's ("KU") Ghent station ("Ghent") produces three primary coal combustion byproducts ("CCP"): bottom ash, fly ash and gypsum, which are currently stored in two ash treatment basins and two gypsum stacking areas. These storage areas are expected to reach full capacity in 2012, creating a need for additional CCP management solutions.

A variety of on-site and off-site options were considered to meet CCP management needs at Ghent. The most effective solutions were identified through a needs analysis and economic analysis based on engineering cost estimates.

To address the pre-2013 need for gypsum storage capacity, an opportunity to remove a quantity of gypsum to be beneficially reused as structural fill was identified. This reuse option is significantly lower cost than transporting CCP to an off-site landfill, which is the other short-term option.

For longer-term CCP storage needs, KU contracted an engineering consultant to develop potential on-site storage alternatives. Of multiple options considered, four options were selected for further economic evaluation. Based on cost estimates and qualitative factors for these alternatives, the most favorable option is a single on-site landfill to store both ash and gypsum.

The most cost effective and environmentally sound CCP management options for Ghent are:

- a proposal for beneficial reuse of 1.3 million cubic yards ("MCY") of CCP (approximately 75% of annual CCP production) by Trans Ash, Inc. in 2010-2012 (Present value of revenue requirement ("PVRR") of [redacted] million or [redacted] per cubic yard), and
- the construction of a new on-site landfill system to store both ash and gypsum production for 25 years to be in-service by 2013 (PVRR of [redacted] million or [redacted] per cubic yard).

In addition, KU will continue to pursue other beneficial reuse opportunities that result in lower disposal costs.

CONFIDENTIAL INFORMATION REDACTED

2. Background

Kentucky Utilities Company's ("KU's") Ghent generating station ("Ghent") is located in Carroll and Gallatin Counties, Kentucky and is comprised of four coal-fired generating units for a total net station capacity of over 1,900 MW. The station produces three primary coal combustion byproducts ("CCP"): bottom ash, fly ash and gypsum. The Ghent station has four existing on-site storage facilities for CCP as follows:

- Ash Treatment Basin ("ATB") #1
- ATB #2
- North Gypsum Stack
- South Gypsum Stack

The ATBs are used to store bottom ash and fly ash which are byproducts of burning coal. ATB #1 is at maximum capacity[1] and ATB #2 is nearing maximum desired capacity. As of February 2009[2], ATB #2 can hold approximately an additional 2.5 MCY of ash. Ghent is forecast to produce approximately 0.7 MCY of ash annually, thus depleting the capacity in ATB #2 in 2012.[3]

Gypsum is produced by Ghent's flue gas desulfurization ("FGD") systems, which use limestone reagent to remove sulfur dioxide from flue gas. Until an additional repository can be developed, Ghent's gypsum is stacked on site. Based on the plant's expected generation, the existing capacity of the north and south gypsum stacks (collectively the "gypsum stack") is expected to be exhausted in 2012.[4]

Some gypsum is currently sold to a third party for beneficial reuse.[5] CertainTeed, Inc. ("CertainTeed") currently pays KU [redacted] per cubic yard for gypsum to be used as a raw material in the production of wallboard. This contract began in 1999 and runs through 2024. CertainTeed does not have minimum or maximum volume obligations, but their expected annual volume is approximately 222,000 cubic yards of gypsum (approximately 20% of annual gypsum production) based on recent utilization data.[6]

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[1] ATB #1 is not relevant to this analysis as it is not currently receiving any CCP, although it is available for emergency use.

[2] A bathymetric survey of ATB #2 was conducted by HDR/Quest/Rudy for GAI Consultants in February 2009.

[3] The available capacity of ATB #2 at the end of June 2009 is forecasted to be approximately 2.3 MCY.

[4] The available capacity of the gypsum stack at the end of June 2009 is forecasted to be approximately 2.6 MCY.

[5] KU identifies economically and environmentally favorable options to beneficially reuse CCP, consistent with KU's Comprehensive Strategy for Management of CCP shown in Exhibit JNV-3.

[6] Gypsum sales to CertainTeed were 263,000 tons in 2007, 375,000 tons in 2008, and 103,000 tons year-to-date through May 2009. However, their purchases decreased late in 2008 and year-to-date in 2009 as the economy slowed.

3. Process and Methodology

KU and Louisville Gas and Electric Company (collectively "the Companies") develop the most effective plan for meeting the CCP storage needs at each generating station. The process of identifying the plan consists of the three following primary tasks which are performed by several departments within the Companies.

- Needs assessment
- Development of alternatives
- Comparison of alternatives

The CCP storage needs are defined by forecasting the production of CCP over the applicable planning period as compared to the existing storage capacity. The Project Engineering department and the applicable generating station are responsible for providing an estimate of remaining capacity.

The expected life of the existing storage capacity is based on the forecast of CCP production, which is developed by Generation Planning for all stations as a function of the expected coal usage for each unit. The Companies compile information regarding the cost of generation for each unit (fuel, variable O&M, emission costs, etc.), a description of the generation capabilities of each unit (capacity, heat rate curve, commitment parameters, emission rates, availability schedules, etc.), a load forecast, the market price of electricity, and the volumetric ability (transfer capability) to access the market. All of this information is brought together in the PROSYM™[7] software, which is used to model the economic operation of the Companies' generating system. The projected coal usage data provided by this model is checked for reasonableness by comparing the results to historical data.

The Project Engineering department develops alternatives for on-site CCP storage solutions and their associated costs. Any alternatives for off-site disposal such as beneficial reuse or off-site landfill disposal are provided by the generating stations' staff and a CCP team focused on exploring alternatives for byproduct storage. The cash flows for selected options are summarized and provided to Generation Planning for evaluation.

The Generation Planning department evaluates the storage and disposal options received from Project Engineering to determine the present value of revenue requirements ("PVRR") associated with the capital expenditures and O&M expenses of each option. This analysis is performed using the Capital Expenditure Recovery module of the Strategist®[8] software model.

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[7] The PROSYM™ model has formed the foundation of prior analyses involving certificates of convenience and necessity for new generating plants, environmental cost recovery for pollution control equipment, and the fuel adjustment clause.

[8] Strategist® is a proprietary, state-of-the-art resource planning computer model. The Capital Expenditure Recovery module is used to quantify the revenue requirements impact associated with capital projects.

4. Needs Assessment

The following capacities were provided by Project Engineering and the Ghent station:

- ATB #1 is at capacity and is available for emergency use only.
- As of February 2009, the remaining available capacity of ATB #2 is 2.5 million cubic yards.[9]
- The remaining available capacity of the gypsum stacks is estimated to be 2.9 MCY as of January 2009.[10]

The expected life of the remaining capacity of the ATB #2 and the Gypsum Stack were estimated by forecasting the CCP production of ash and gypsum at Ghent. The quantity of ash produced at Ghent is estimated at a coal specification of 11.5% ash by weight of the total quantity of coal used, or approximately 11.5 tons of ash per 100 tons of coal. Converting to volumetric measurement, assuming ash production consists of 80% fly ash and 20% bottom ash by weight, approximately 11.5 cubic yards of total ash is produced per 100 tons of coal.[11]

The chemical reaction by which gypsum is produced results in a net gypsum production of approximately 18% by weight of the total quantity of coal used,[12] or approximately 18 tons of gypsum per 100 tons of coal. Converting to volumetric measurement for the gypsum stack, approximately 17.8 cubic yards of gypsum is produced per 100 tons of coal.

The forecasted CCP production volume for Ghent is shown in Table 1 and depicted graphically in Figure 1 and Figure 2, based on the forecasted coal burn shown in Table 2. Table 2 also contains the historical quantities of coal burned as a comparison to the forecast. The increase in coal burn during the 2010-2013 period is due to the completion of the FGD installations at Ghent in 2009, which required prior scheduled outages on each of the Ghent units during 2007-2009. Also, with the addition of the FGDs, Ghent has lower fuel costs, resulting in higher forecasted generation.

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[9] Based on expected coal burn, Generation Planning forecasts that by the end of 2009, the remaining capacity of ATB #2 will be 1.9 MCY.

[10] Based on expected coal burn and existing beneficial reuse, Generation Planning forecasts that by the end of 2009, the remaining capacity of the gypsum stacks will be 2.2 MCY.

[11] Density assumptions for wet storage are 0.945 tons per cubic yard for bottom ash and 1.0125 tons per cubic yard for both fly ash and gypsum.

[12] Fuel specification assumptions include SO_2 content of approximately 5.9 lb/mmBTU and heat content of 22.16 mmBTU/ton.

Table 1: CCP Production Forecast (MCY)

CCP Production Forecast *(MCY – wet storage)*			
	Fly Ash	**Bottom Ash**	**Gypsum**
2009	0.54	0.14	0.88
2010	0.55	0.15	1.09
2011	0.58	0.15	1.12
2012	0.55	0.15	1.06
2013	0.55	0.15	1.09

Table 2: Ghent Coal Usage (Million Tons)

Ghent Coal Usage *(M Tons)*	
Historical	
2004	5.4
2005	5.6
2006	5.6
2007	5.3
2008	5.7
Forecast	
2009	5.6
2010	6.0
2011	6.3
2012	6.1
2013	6.1

The forecasted generation and the resulting coal usage at Ghent correspond to an average capacity factor of approximately 77%. This relatively high capacity factor is consistent with Ghent's low production cost. Since Ghent is already modeled as a baseload station, the risk of significantly underestimating CCP production is low. However, reduction in load or unexpected outages at Ghent could affect the capacity factor and lower future CCP production.

Figures 1 and 2 show the forecasted cumulative CCP production at the end of each year compared to the expected available capacity at the end of 2009. With current forecasts for ash production and without any additional on-site capacity or off-site storage or reuse, ATB #2 is expected to reach full capacity during 2012, as shown in Figure 1. Assuming no beneficial reuse beyond the expected 222,000 cubic yards per year by CertainTeed, the gypsum stack is also expected to reach maximum capacity in 2012, as shown in Figure 2.

Figure 1: ATB #2 Capacity

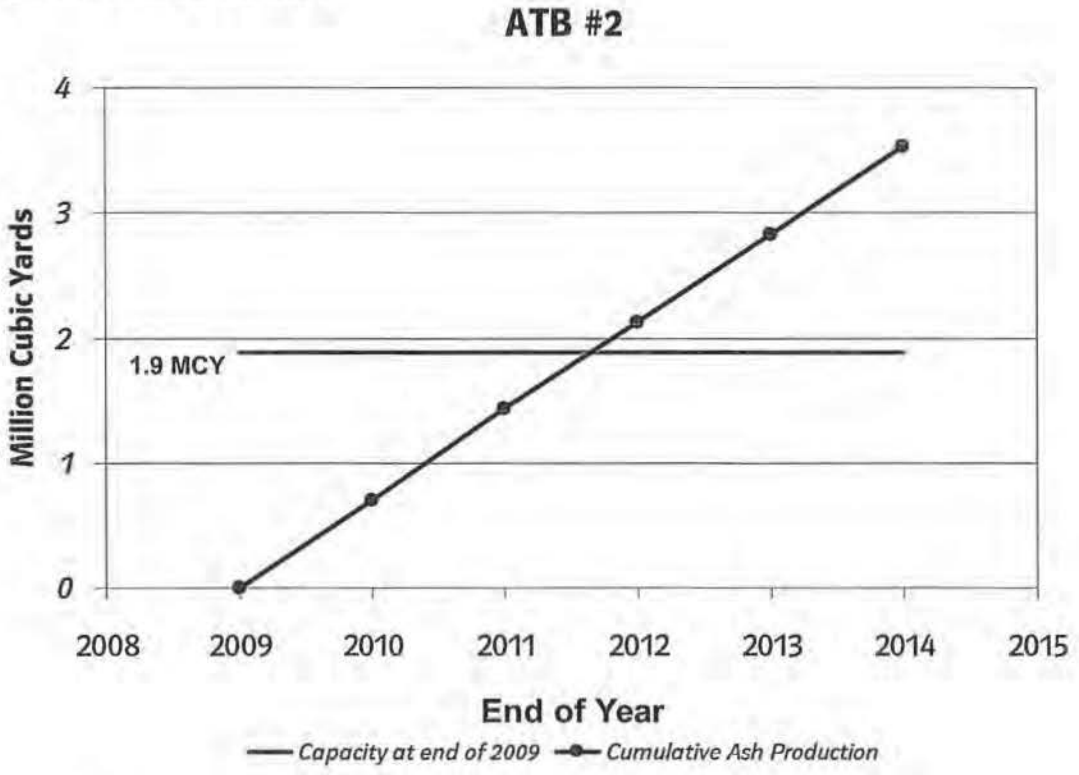
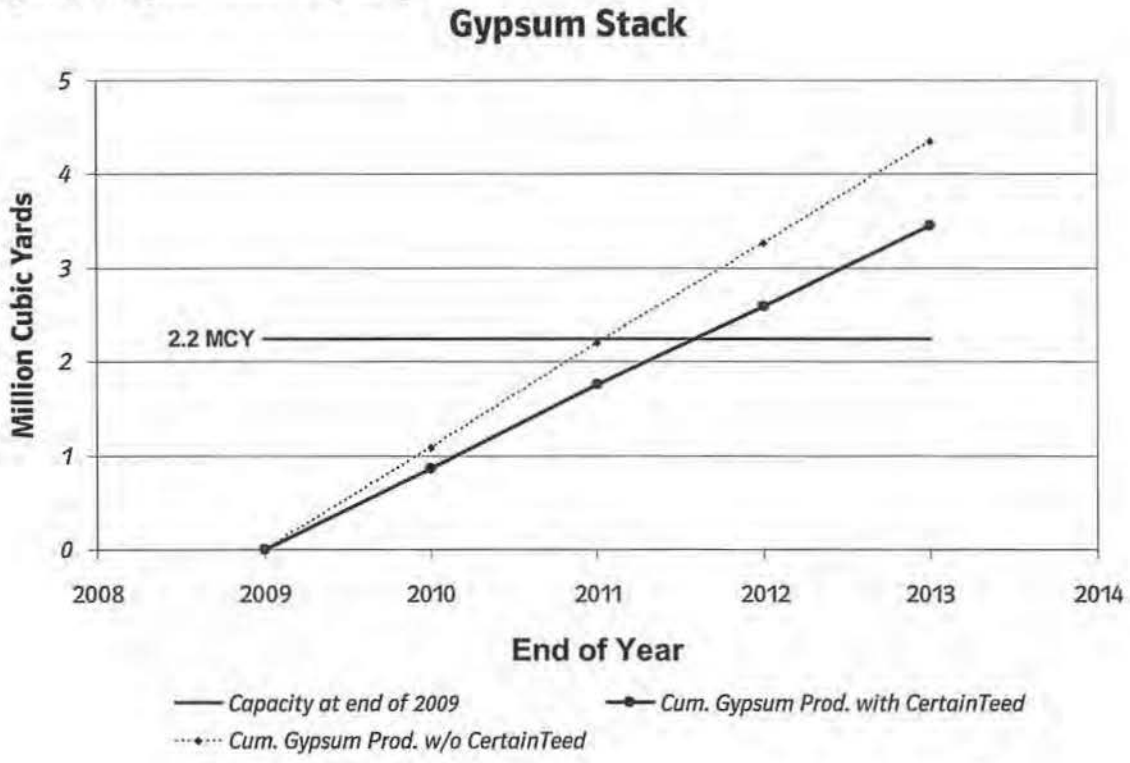


Figure 2: Gypsum Stack Capacity



In summary, the needs assessment indicates that additional CCP disposal alternatives will be needed for both ash and gypsum at Ghent by 2012. At least 0.6 MCY of CCP must be moved off-site in order to maintain operations of the existing storage facilities at Ghent through 2012.

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5. Development of Alternatives

In the case of CCP solutions for Ghent, Project Engineering and the CCP team developed two sets of options for evaluation:

1. Short-term storage options to meet 2009-2012 requirements
2. Long-term storage options to meet 2013-2037 requirements.

The short-term options were developed because long-term options cannot be in service before 2013, and on-site capacity is expected to be depleted in 2012. These options were evaluated independently, leading to a recommendation for short-term and long-term solutions.

5.1 Short-Term Disposal

As a result of ATB #2 and the gypsum stack nearing their maximum desired storage capacities, the station, in conjunction with the CCP Team, negotiated with Trans Ash, Inc. ("Trans Ash"), a company specializing in the reuse of CCP, to beneficially reuse 1.3 MCY (approximately 1.5 million tons as hauled) of CCP as structural fill. The 2009 base cost of this proposal is [redacted] per MCY[13], subject to annual adjustments to the base price and fuel cost adjustments. The base price is redetermined by increasing the previous year's price by 90 percent of the year-over-year percent change in the Consumer Price Index – All Urban Customers, U.S. City Average. The fuel adjustments are made for both off-road and on-road diesel use. Off-road fuel adjustments are calculated as the difference between the base diesel unit price of [redacted] per gallon and the average unit diesel price paid multiplied by the quantity of off-road diesel purchased each year. The on-road diesel adjustment is calculated as the product of the average quantity of fuel used and the difference between the base diesel price and the index price as published by the U.S. Department of Energy, Energy Information Administration in "The U.S. No 2 Diesel Low Sulfur (15-500 ppm) Retail Sales by All Sellers (Cents per Gallon)"

An agreement with Trans Ash would require that the full 1.3 MCY be moved in 2010-2012 to satisfy the end consumer of the beneficial reuse opportunity. Consistent with KU's CCP management strategy, this fill location has been evaluated and confirmed as appropriate for beneficial reuse. The location is not in an environmentally sensitive area.

The only near-term alternative to beneficial reuse of CCP is the use of an existing off-site commercial landfill. For 2009, the total unit cost of storage in the closest off-site landfill was estimated to be [redacted] per cubic yard[14]. In contrast to the Trans Ash proposal, an off-site landfill storage option requires that only a minimum of 0.6 MCY must be moved off-site prior to 2013 to ensure continuing operations at Ghent.

---

13 [redacted] per MCY as stored is equivalent to [redacted] per ton as hauled.

14 [redacted] per cubic yard is equivalent to [redacted] per ton as hauled for transport and storage at Valley View landfill near Sulphur, KY, approximately 25 miles from Ghent. Cost components per ton are [redacted] for excavating and loading, [redacted] for hauling, and [redacted] for landfill tipping fee. This quoted tipping fee is slightly below the listed rates of [redacted]/ton for other regional public landfills.

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5.2 Long-Term Storage

To meet the long-term storage needs at Ghent, KU contracted GAI Consultants, Inc., Pittsburgh, PA ("GAI") to provide both an Initial Siting Study ("ISS") and a Final Conceptual Design Study of CCP storage alternatives at Ghent.[15] The ISS identified over forty potential alternatives based on combinations of a number of variables, including storage and transport methods, site locations, and relocation of transmission lines. As a result of this study, four on-site alternatives shown in Table 3 were selected for further consideration. In the process of developing the Final Conceptual Design Study, GAI refined the cost estimates for these alternatives in addition to other detailed engineering tasks. As an alternative to building on-site storage facilities, use of an existing off-site commercial landfill for storing future CCP was also considered as a long-term option.

Table 3: Alternatives for Long-Term Storage

		On-Site				
Case		**14/28**	**37**	**41**	**42/28**	**Off-Site Landfill**
Description		2 Landfills	1 Landfill	1 Pond	1 Pond 1 Landfill	
Total Capacity *(MCY)*		46.1	46.1	53.6	48.3	46.1 needed
Nominal Cost *($M)*	**Capital**					
	O&M[16]					

Each of the cases for on-site long-term storage was designed to hold twenty-five years of CCP production with phased construction. The total capacity required for each case differs due to the different density of CCP stored in ponds versus landfills. Table 4 shows the construction periods, the in-service years, and the capacity for each phase of the on-site cases. The site locations as shown in Figure 3 are noted as follows:

- Site M is north of ATB #2 on property owned by KU.
- Site E/F which is southeast of ATB #2 and include properties owned by KU and approximately 350 acres owned by others.
- Pond L represents vertical and lateral expansion east of ATB #2 with an impoundment.

[15] A preliminary draft of the Final Conceptual Design Study is shown in Exhibit JNV-4.
[16] The O&M figures in Table 3 include the cost for power to operate the on-site storage alternatives.

Figure 3: CCP Storage Site Alternatives

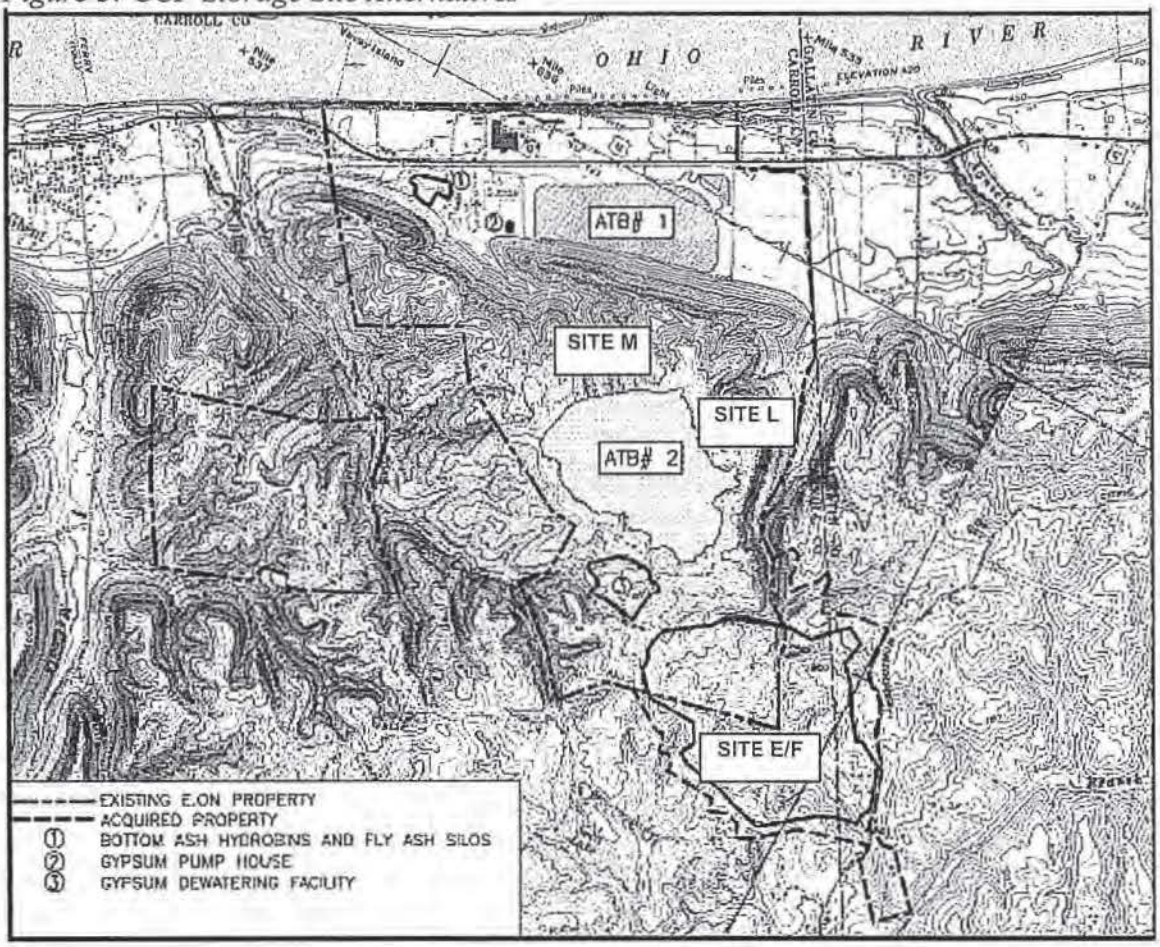


Table 4: Construction Phases for On-Site Storage Options

Case		**14/28**		**37**	**41**	**42/28**	
Site Location		M	E/F	E/F	L	L	E/F
Phase 1	**Construction**	2010-14		2010-14	2010-13	2010-14	
	In-Service	2013		2013	2013	2013	
	Capacity *(MCY)*	5.3	5.7	14.7	16.5	7.2	8.4
Phase 2	**Construction**	2016-18		2018-19	2017-19	2018-20	
	In-Service	2019		2020	2020	2021	
	Capacity *(MCY)*	8.5	8.0	12.3	15.7	8.3	7.7
Phase 3	**Construction**	--	2023-25	2024-26	2025-27	2027-29	
	In-Service	--	2026	2027	2028	2030	
	Capacity *(MCY)*	--	12.4	19.1	21.6	6.1	8.0
Phase 4	**Construction**	2027-29	--	--	--	--	
	In-Service	2030	--	--	--	--	
	Capacity *(MCY)*	6.2	--	--	--	--	--

Case 14/28. Case 14/28 consists of separate landfills for ash and gypsum with ash stored at Site M and gypsum stored at Site E/F. Construction of the landfills consists of four phases as shown in Table 4 with the first phase beginning in 2010 and the final phase ending in 2029. Figure 4 shows the phased cumulative design capacity of the landfill at Site M compared to the forecasted ash production. Figure 5 shows the phased cumulative design capacity of the landfill at Site E/F compared to the forecasted gypsum production both including and excluding the effect of the expected gypsum reuse by CertainTeed. These figures, as well as Figures 6-9, demonstrate that the designs for the timing and volume of capacity additions for each of the cases considered are reasonable compared the forecasted CCP production.

Figure 4: Long-Term Needs Assessment – Case 14/28, Landfill M

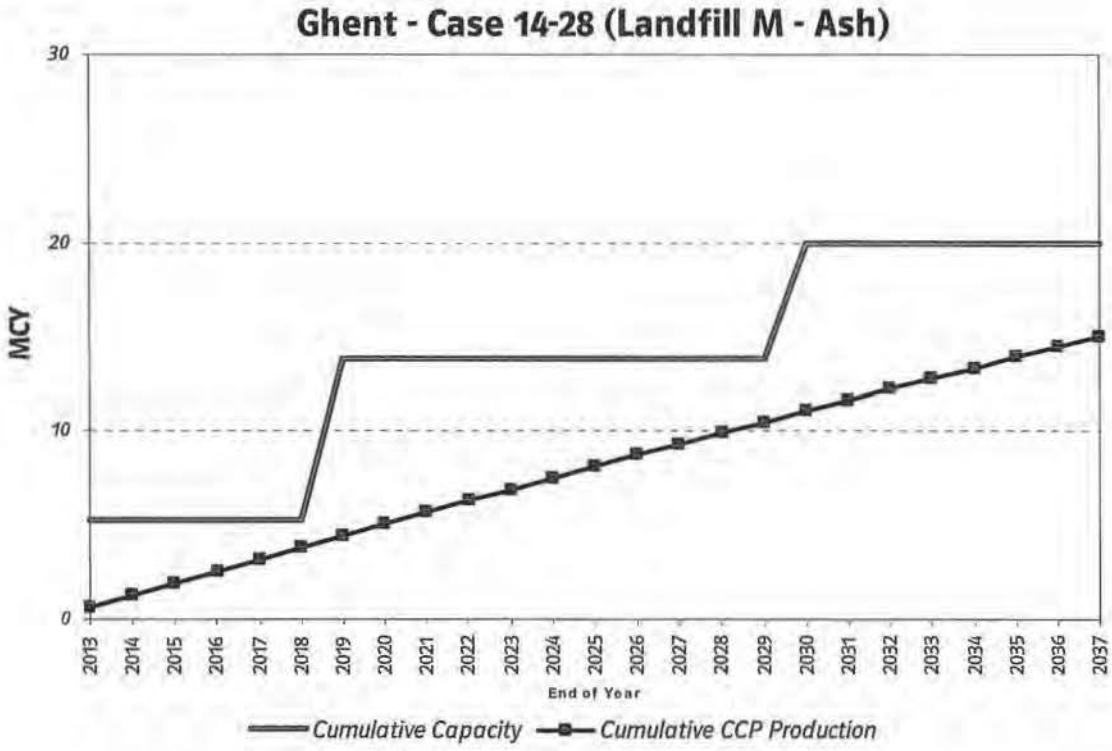
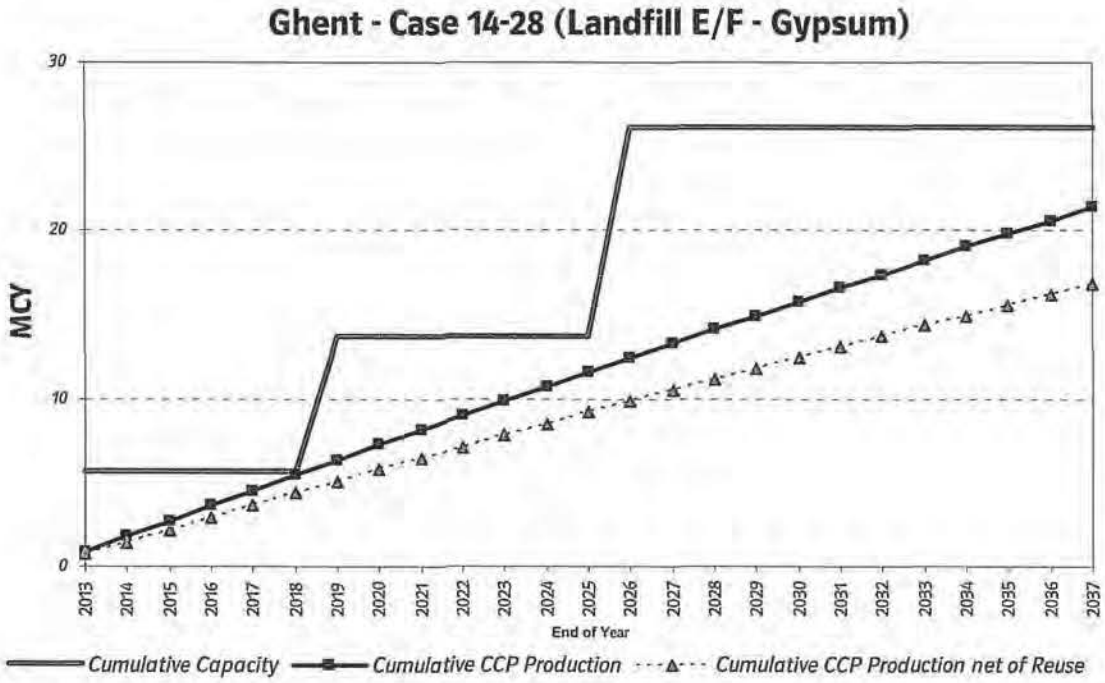
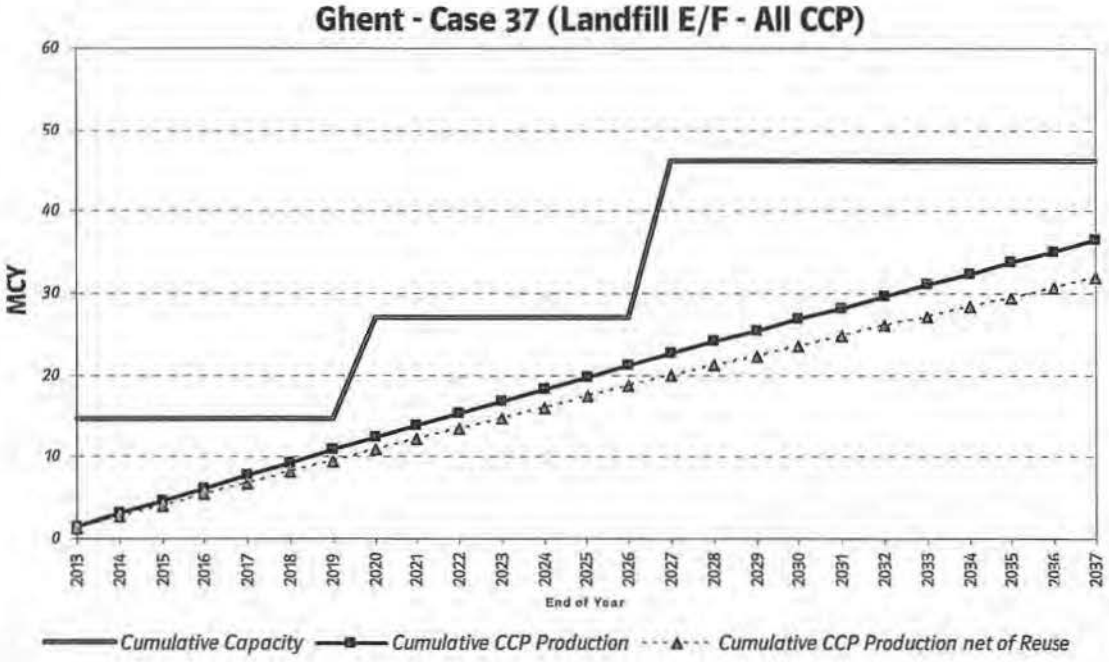


Figure 5: Long-Term Needs Assessment – Case 14/28, Landfill E/F



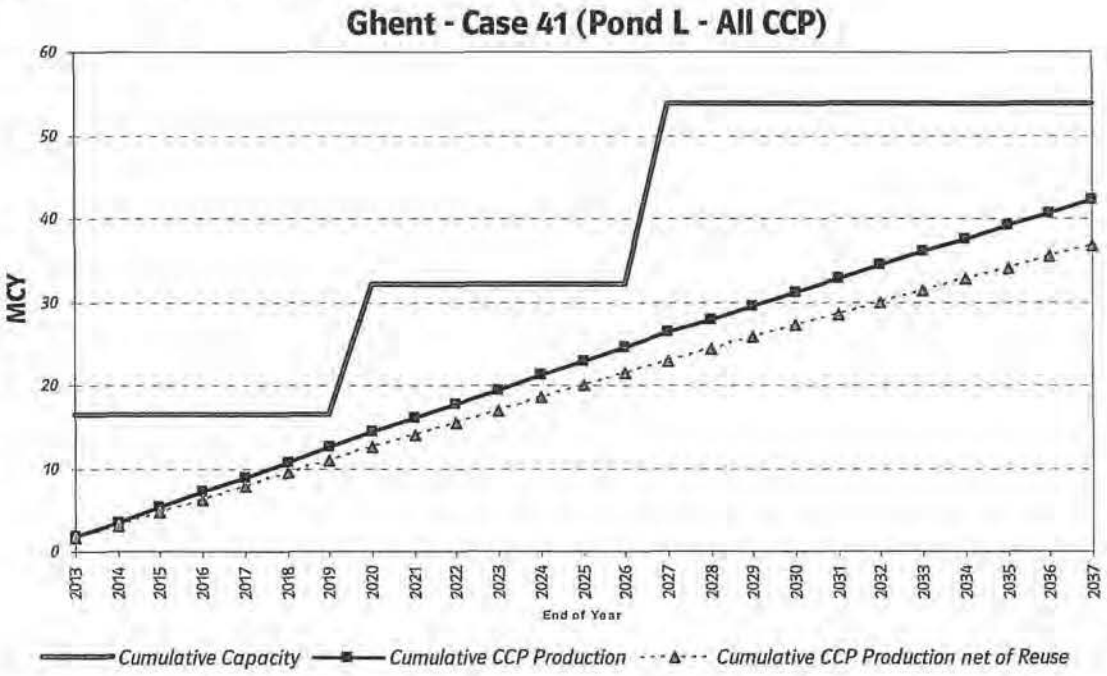
Case 37. Case 37 consists of a single landfill for both ash and gypsum at Site E/F. The construction schedule consists of three phases beginning in 2010 and ending in 2026. Figure 6 shows the phased cumulative design capacity of this landfill compared to the forecasted cumulative CCP production both including and excluding the effect of the expected gypsum reuse by CertainTeed.

Figure 6: Long-Term Needs Assessment – Case 37, Landfill E/F



Case 41. Case 41 consists of a single pond for both ash and gypsum at Site L. The construction schedule consists of three phases beginning in 2010 and ending in 2027. Figure 7 shows the phased cumulative design capacity of this landfill compared to the forecasted cumulative CCP production both including and excluding the effect of the expected gypsum reuse by CertainTeed.

Figure 7: Long-Term Needs Assessment – Case 41, Pond L



Case 42/28. Case 42/28 consists of a pond at "Site L" for ash and a landfill at "Site E/F" for gypsum. Construction of these facilities consists of four phases as shown beginning in 2010 and the final phase ending in 2029. Figure 8 shows the phased cumulative design capacity of the pond at Site L compared to the forecasted ash production. Figure 9 shows the phased cumulative design capacity of the landfill at Site E/F compared to the forecasted gypsum production both including and excluding the effect of the expected gypsum reuse by CertainTeed.

Figure 8: Long-Term Needs Assessment – Case 42/28, Pond L

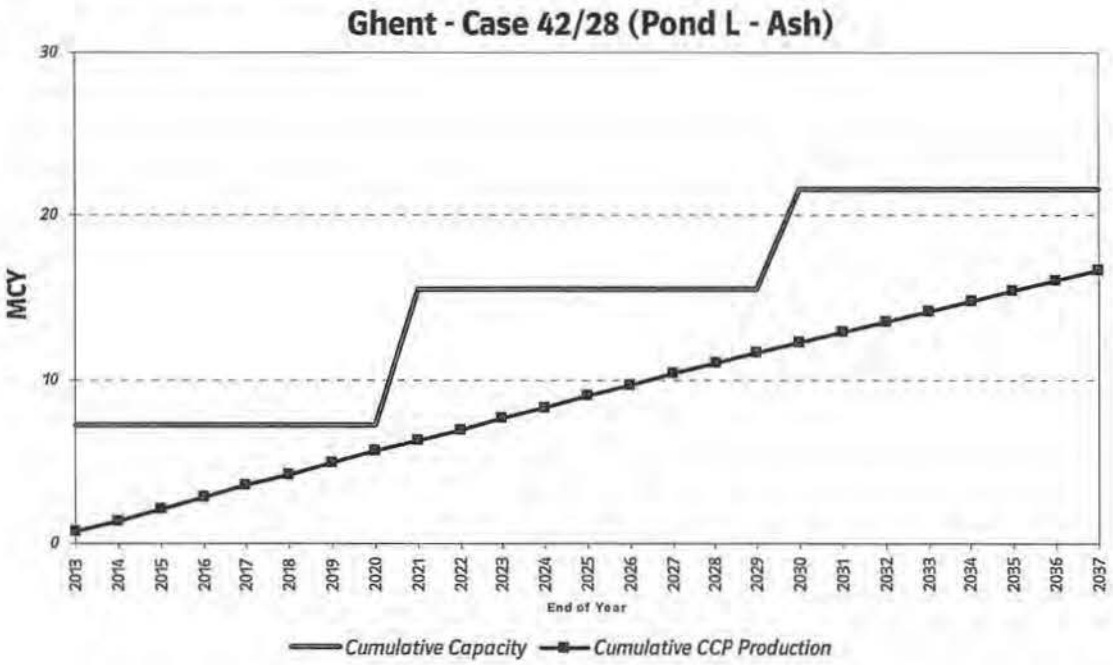
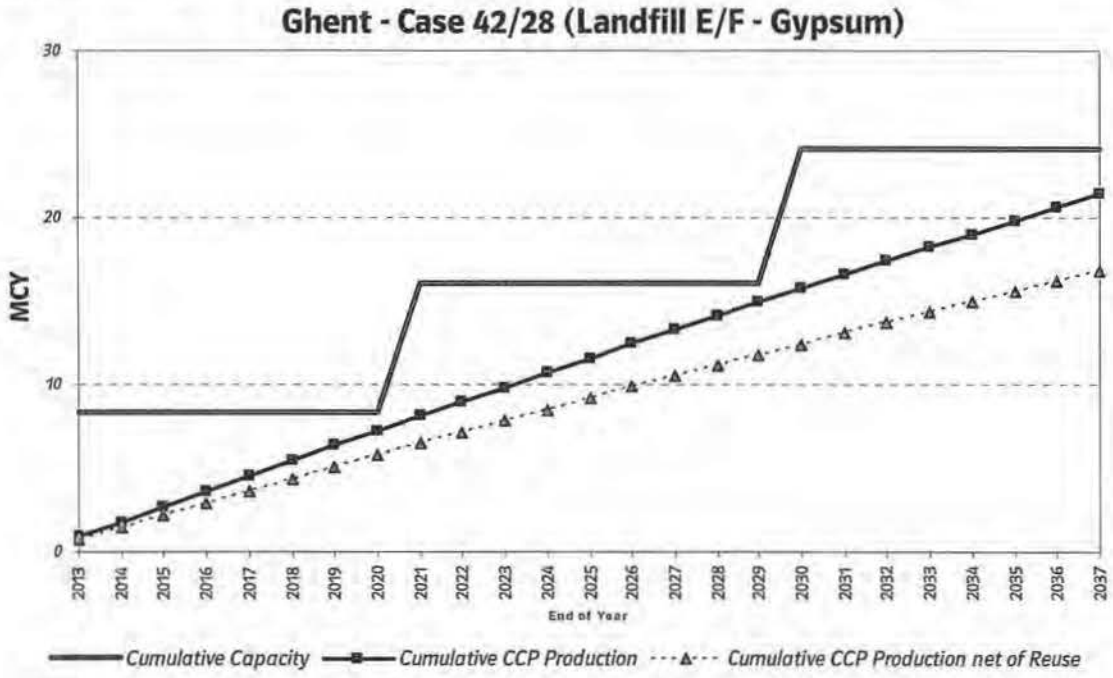


Figure 9: Long-Term Needs Assessment – Case 42/28, Landfill E/F



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6. Comparison of Alternatives

6.1 Short-Term Disposal

The short term disposal analysis compares the cost of a beneficial reuse initiative with Trans Ash to the cost of off-site landfill disposal. The Trans Ash proposal is to move 1.3 MCY in 2010 through 2012 and the plan for off-site landfill disposal is to move 0.6 MCY in 2012. Both of these options consist only of O&M costs, with no additional capital expenditure. As seen in Table 5, the Trans Ash proposal is the least-cost option to meet the short term capacity needs at Ghent. On a cost per volume basis, the Trans Ash option is almost 80% less costly than the off-site landfill option. Also, despite the higher volume requirement, the Trans Ash proposal's PVRR is $9.8 million lower than the off-site landfill alternative.

Table 5: PVRR Analysis Summary of Short-Term Alternatives

	Trans Ash Beneficial Reuse	**Off-site Landfill Disposal**
Total Quantity *(MCY)*	1.3	0.6
PVRR *(2009 million $)*		
Delta to Least Cost Case	*Least Cost*	*9.8*
Unit Cost *(2009 PVRR $/cubic yard)*		

6.2 Long-Term Storage

The long-term storage evaluation (Table 6) compares the PVRR and per-unit cost of four on-site storage alternatives selected in the engineering studies, in addition to disposal in an off-site commercial landfill. The financial assumptions related to the analysis of these cases are shown in Appendix 1, the projected cash flows are shown in Appendix 2, and the annual revenue requirements are detailed in Appendix 3.

The following is a brief comparison of the results:

Case 37. Case 37 consists of a common on-site landfill for both ash and gypsum. This is least cost on a PVRR basis by $26 million. This option is also lowest cost on a per unit volume basis at PVRR per cubic yard. The favorable capital profile of this project results from the single landfill approach compared to Case 14/28, which includes separate landfills for ash and gypsum.

Case 14/28. Case 14/28 consists of separate landfills for ash and gypsum and involves higher up-front capital costs ($34 million higher through 2017, $6 million of which is due to transmission expenditures), an accelerated timeline for the addition of subsequent phases, and an additional construction phase compared to Case 37. This is partially offset by slightly lower annual O&M costs due to reduced distances for transporting ash. In summary, the lower costs associated with the shorter transport distances are overcome by the additional costs of the two landfills.

Cases 41 and Case 42/28. Case 41 consists of a single pond for both ash and gypsum and Case 42/28 consists of an ash pond and a gypsum landfill. The construction of an ash

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pond is significantly more capital intensive compared to a landfill, although the ongoing operation is less costly. Through 2016, both of these cases are approximately $95 million higher in total capital costs than Case 37. Construction of the second and third phases increases the capital premium to $850 million for Case 41 and $350 for Case 42/28. Inclusion of the pond closure costs in 2038 raises these figures to $1,145 million and $475 million for Cases 41 and 42/28, respectively. Although the O&M is significantly lower for these cases compared to Case 37, it is not enough to offset the effect of the higher initial capital expenditures.

Off-site landfill. The off-site landfill option consists only of O&M costs, but this option is the highest-cost alternative due to the high unit cost of off-site landfill disposal, which is approximately [redacted] PVRR per cubic yard.

Beneficial Reuse. KU will evaluate beneficial reuse opportunities as they arise, and will pursue proposals that are favorable to on-site disposal.

Table 6: PVRR Analysis Summary of Long-Term Alternatives
(2009 PVRR million $)

Case	**14/28**	**37**	**41**	**42/28**	**Off-Site Landfill**
PVRR					
Capital	[redacted]				
O&M					
Total					
Delta to Least Cost Case	*26*	*Least Cost*	*254*	*125*	*413*
Capacity *(MCY)*	46.1	46.1	53.6	48.3	46.1
Unit Cost *(2009 PVRR $/CY)*	[redacted]				

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7. Recommendations

The needs assessment demonstrates a need for additional CCP storage capacity at the Ghent station by 2012. Analysis of the options provided by Project Engineering demonstrates that the most favorable alternatives to meet Ghent's CCP storage needs are:

- Short-term: the proposal for beneficial reuse of 1.3 MCY of gypsum by Trans Ash in 2010 through 2012. The PVRR is [redacted] million, or [redacted] per cubic yard.
- Long-term: constructing the first phase of an on-site landfill to store both ash and gypsum, to be in-service in 2013. The PVRR is [redacted] million, comprised of [redacted] million capital and [redacted] million O&M.

The short-term solution utilizing beneficial reuse is almost 80% less on a per unit of volume basis than disposal at an off-site commercial landfill. The unit cost of this short-term recommendation is also lower than the unit cost of the recommended long-term on-site landfill. The long-term solution includes the construction of a single landfill and is 4% less on a PVRR basis than the dual landfill option (Case 14/28).

Further details regarding the status of this project and the expected construction schedule are shown in Appendix 4.

Appendix 1

Analysis Assumptions

- Study Period: 30-year period for operational costs impacts (2009-2038)
  50-year period for capital costs impacts (2009 through tax life of final project phase).

  The revenue requirements associated with capital costs are determined via the Capital Expenditure and Recovery module of the Strategist production and capital costing software. To completely account for capital projects costs over their lifetime, the revenue requirements associated with new capital projects were included beyond the operational study period through the end of their tax life.

- Capital and O&M costs associated with the addition of new environmental projects will be subject to recovery through the Environmental Cost Recovery ("ECR") mechanism. O&M costs for electrical power usage required to operate equipment related to CCP storage are included when comparing alternatives (noted as "Power" in Appendix 2) but are not included as recoverable costs for calculation of ECR billing factors.

- Financial data
  - Discount rate: 7.81%
  - Income tax rate: 38.9%
  - Insurance rate: 0.07%
  - Property tax rate: 0.15 %
  - Percentage of debt in capital structure: 47.01%
  - Debt interest rate/weighted cost of debt: 4.64%
  - Return on equity: 10.63%
  - Book life - average landfill phase (non-transmission): 12 years
  - Book life – transmission (line relocation): 40 years
  - Tax life: 20 years
  - Annual capital and O&M escalation rate: 6%
  - Contingency included in cost estimates: ~28%
  - E.ON US overhead included in capital costs 3.5%
  - Capital expenditures are assumed to occur at year end.

- CCP data
  - Coal ash content: 11.5%
  - Coal SO_2 content: ~5.9 lb/mmBTU
  - Coal heat content: 22.16 mmBTU/ton
  - FGD removal efficiency:
    Units 1, 3, 4 98%
    Unit 2 (currently Unit 1) 94.3%

Appendix 2

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Projected Cash Flows

Annual Cash Flows Short-Term Options O&M Only *($ thousands)*		
Case	**Beneficial Reuse**	**Off-Site Landfill**
2008	[redacted]	
2009		
2010		
2011		
2012		
2013+		
Total		

$ thousands

Case **14/28** **2 landfills**

	Annual Cash Flows										
	Capital						**O&M**				**Total**
	Phase1	Phase2	Phase3	Phase4	Transmission	**Total Capital**	Non-Power	Power	Trans Ash	**Total O&M**	
2008	[redacted]										
2009											
2010											
2011											
2012											
2013											
2014											
2015											
2016											
2017											
2018											
2019											
2020											
2021											
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2023											
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2026											
2027											
2028											
2029											
2030											
2031											
2032											
2033											
2034											
2035											
2036											
2037											
2038											
Total											

CCP Plan for Ghent Station
June 2009
Appendix 2 – Projected Cash Flows

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$ thousands

Case 37 1 landfill

	Annual Cash Flows										
	Capital						O&M				Total
	Phase1	Phase2	Phase3	Phase4	Transmission	**Total Capital**	Non-Power	Power	Trans Ash	**Total O&M**	
2008	[redacted]										
2009											
2010											
2011											
2012											
2013											
2014											
2015											
2016											
2017											
2018											
2019											
2020											
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2028											
2029											
2030											
2031											
2032											
2033											
2034											
2035											
2036											
2037											
2038											
Total											

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$ thousands

Case 41 1 pond

	Annual Cash Flows										
	Capital						O&M				Total
	Phase1	Phase2	Phase3	Phase4	Transmission	Total Capital	Non-Power	Power	Trans Ash	Total O&M	
2008											
2009											
2010											
2011											
2012											
2013											
2014											
2015											
2016											
2017											
2018											
2019											
2020											
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2030											
2031											
2032											
2033											
2034											
2035											
2036											
2037											
2038											
Total											

CCP Plan for Ghent Station
June 2009
Appendix 2 – Projected Cash Flows

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$ thousands

Case 42/28 1 pond/1 landfill

	Annual Cash Flows										
	Capital						O&M				Total
	Phase1	Phase2	Phase3	Phase4	Transmission	Total Capital	Non-Power	Power	Trans Ash	Total O&M	
2008	[redacted]										
2009											
2010											
2011											
2012											
2013											
2014											
2015											
2016											
2017											
2018											
2019											
2020											
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2029											
2030											
2031											
2032											
2033											
2034											
2035											
2036											
2037											
2038											
Total											

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Case	Off-Site Landfill (O&M Only)		
	Capital	O&M	
Cost Escalation		6%	2%
2008			
2009			
2010			
2011			
2012			
2013			
2014			
2015			
2016			
2017			
2018			
2019			
2020			
2021			
2022			
2023			
2024			
2025			
2026			
2027			
2028			
2029			
2030			
2031			
2032			
2033			
2034			
2035			
2036			
2037			
2038			
Total			

Appendix 3

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Revenue Requirements Detail

$ thousands

Case **Short-Term Beneficial Reuse (O&M Only)**

	Capital	O&M
2008	[redacted]	
2009		
2010		
2011		
2012		
2013+		
2009 PVRR		

$ thousands

Case **Short-Term Off-Site Landfill (O&M Only)**

	Capital	O&M
2008	[redacted]	
2009		
2010		
2011		
2012		
2013+		
2009 PVRR		

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$ thousands

Case 14/28 2 landfills

	Annual Revenue Requirements										
	Capital						O&M				Total
	Phase1	Phase2	Phase3	Phase4	Transmission	Total Capital	Non-Power	Power	Trans Ash	Total O&M	
2009											
2010											
2011											
2012											
2013											
2014											
2015											
2016											
2017											
2018											
2019											
2020											
2021											
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2048											
2049											
2050											
2051											
2052											
2053											
2054											
2055											
2056											
2057											
2058											
2009 PVRR											

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$ thousands

Case 37 1 landfill

	Annual Revenue Requirements										
	Capital						O&M				Total
	Phase1	Phase2	Phase3	Phase4	Transmission	Total Capital	Non-Power	Power	Trans Ash	Total O&M	
2009											
2010											
2011											
2012											
2013											
2014											
2015											
2016											
2017											
2018											
2019											
2020											
2021											
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2048											
2049											
2050											
2051											
2052											
2053											
2054											
2055											
2056											
2057											
2058											
2009 PVRR											

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$ thousands

Case 41 1 pond

	Annual Revenue Requirements										
	Capital						O&M				Total
	Phase1	Phase2	Phase3	Phase4	Transmission	**Total Capital**	Non-Power	Power	Trans Ash	**Total O&M**	
2009	[redacted]										
2010											
2011											
2012											
2013											
2014											
2015											
2016											
2017											
2018											
2019											
2020											
2021											
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2009 PVRR											

CONFIDENTIAL INFORMATION REDACTED

$ thousands

Case 42/28 1 pond/1 landfill

	Annual Revenue Requirements										
	Capital						O&M				Total
	Phase1	Phase2	Phase3	Phase4	Transmission	Total Capital	Non-Power	Power	Trans Ash	Total O&M	
2009	[redacted]										
2010											
2011											
2012											
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2014											
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2009 PVRR											

CONFIDENTIAL INFORMATION REDACTED

Case **Off-Site Landfill (O&M Only)**

$ thousands

using 6% cost escalation

	Capital	O&M
2008	[redacted]	
2009		
2010		
2011		
2012		
2013		
2014		
2015		
2016		
2017		
2018		
2019		
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2030		
2031		
2032		
2033		
2034		
2035		
2036		
2037		
2038		
2009 PVRR		

using 2% cost escalation

	Capital	O&M
2008	[redacted]	
2009		
2010		
2011		
2012		
2013		
2014		
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2016		
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2037		
2038		
2009 PVRR		

Appendix 4

Project Status *(As of April 2009)*

Detailed Design

The detailed design phase for Case 37 is currently in progress. Meetings are being conducted with the E.ON U.S. property appraiser and the individual owners of properties within the boundaries of Site F. After obtaining approval from these property owners, geotechnical, archaeological, ecological, and historical structures studies have begun. This will allow for the completion of the detailed engineering design and the start of the development of the permits for this location. The permits are expected to be submitted by the end of 2009.

Construction Schedule

The preliminary design for the landfill is to develop it in three distinct phases. This detail as well as the closure plan for each phase will be further developed in the detailed design phase. The current schedule is shown in Table A4-1.

Table A4-1: Preliminary Construction Schedule

Task	Schedule
Property acquisition	3rd Quarter 2009
Begin first phase landfill development	2nd Quarter 2010
Finish first phase landfill development	4th Quarter 2014
Begin second phase landfill development	2nd Quarter 2018
Finish second phase landfill development	4th Quarter 2019
Begin third phase landfill development	2nd Quarter 2024
Finish third phase landfill development	4th Quarter 2026

The risks associated with the project include the following:

- Inability to reach a settlement on purchase price for one or more of the properties required for the site, resulting in lengthy eminent domain litigation
- Discovery of unknown geotechnical issues
- Litigation and intervention of the 401/404 permits for Sites E/F could delay the construction of this section of the work
- Failure of major components during start-up
- Unseasonable weather, such as exceptionally heavy rainfall, late spring, early on-set of winter, etc.
- Engineering design failure of a component of design
- Contractor delays due to shortage of materials or manpower issues
- Change in regulations

EXHIBIT B

Revenue Requirements Summary
2009 Amended Plan - KU

		2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Project 30	**Ghent Landfill - Phase I**										
	Revenue Requirement										
	Eligible Plant	4,321,671	46,476,848	105,485,803	177,577,356	191,133,916	201,941,953	202,576,976	203,254,220	203,969,979	203,969,979
	Less: Retired Plant	-	-	-	-	-	-	-	-	-	-
	Less: Accumulated Depreciation	-	-	-	-	(5,110,443)	(10,744,624)	(16,396,577)	(22,067,370)	(27,758,132)	(33,448,895)
	Plus: Accumulated Depreciation on retired plant	-	-	-	-	-	-	-	-	-	-
	Less: Deferred Tax Balance	-	-	-	-	(732,114)	(3,915,287)	(6,717,731)	(9,167,625)	(11,289,716)	(13,100,909)
	Plus: Deferred Tax Balance on retired plant	-	-	-	-	-	-	-	-	-	-
	Environmental Compliance Rate Base	4,321,671	46,476,848	105,485,803	177,577,356	185,291,361	187,282,042	179,464,668	172,019,025	164,922,131	157,420,175
	Rate of return	11.12%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
		$ 480,509	$ 5,098,393	$ 11,571,030	$ 19,478,952	$ 20,325,122	$ 20,543,496	$ 19,685,976	$ 18,869,243	$ 18,090,765	$ 17,267,855
	Operating expenses	84,800	121,349	128,630	136,348	19,003,308	20,143,507	21,352,117	22,633,244	23,991,239	25,430,713
	Annual Depreciation expense	-	-	-	-	5,110,443	5,634,180	5,651,953	5,670,793	5,690,762	5,690,762
	Less depreciation on retired plant	-	-	-	-	-	-	-	-	-	-
	Annual Property Tax expense	-	6,483	69,716	158,229	266,366	279,035	286,796	279,274	271,780	264,318
	Total OE	$ 84,800	$ 127,832	$ 198,346	$ 294,577	$ 24,380,117	$ 26,056,723	$ 27,290,866	$ 28,583,310	$ 29,953,782	$ 31,385,793
	Total E(m)	565,309	5,226,225	11,769,376	19,773,528	44,705,239	46,600,208	46,976,843	47,452,553	48,044,547	48,653,648

EXHIBIT C

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

THE APPLICATION OF KENTUCKY UTILITIES COMPANY FOR A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY AND APPROVAL OF ITS 2009 COMPLIANCE PLAN FOR RECOVERY BY ENVIRONMENTAL SURCHARGE	))))))	CASE NO. 2009-00197

DIRECT TESTIMONY OF
JOHN N. VOYLES, JR.
VICE PRESIDENT, TRANSMISSION AND GENERATION SERVICES
KENTUCKY UTILITIES COMPANY

Filed: June 26, 2009

contain sufficient capacity for bottom ash storage for approximately 30 years. The Main Pond will have approximately six (6) years of projected remaining capacity after elevation 912 feet is completed in 2012.

Exhibit JNV-8 is a conceptual design report for the Brown station ash treatment basin, prepared by the Fuller Mossbarger Scott and May engineering firm. Exhibit JNV-9 is a preliminary design report for the Brown station ash treatment basin, also prepared by Fuller Mossbarger Scott and May engineering firm. Exhibits JNV-8 and JNV-9 are on the compact disc included with this testimony and provide more details associated with this project.

Q. Is this project a cost-effective means of complying with environmental regulations and permits?

A. Yes, this project allows KU to continue to comply with all applicable environmental regulations. As first demonstrated in Case No. 2004-00426, and consistent with the 2006 ECR Update made to the Commission staff, the phased approach to the construction of the ash treatment basins continues to be the least-cost approach to manage CCP at the Brown station. As detailed in the testimony of Mr. Schram, high costs continue to preclude cost effective off-site alternatives.

Project 30 – Ghent Station Landfill

Q. Please describe the new landfill at the Ghent Station (Project 30), the anticipated cost and the associated timeline.

A. Project 30 consists of the first phase (Phase I) of a three phase, new landfill construction project at the Ghent station for continued on-site management of CCP. Completion of this project requires the procurement of approximately 350 acres of

land and relocation of approximately 2,500 linear feet of transmission line, existing underground utilities and a small cemetery (currently known to contain six burial plots). The project includes a transport system for the CCP material and the installation of a leachate collection/sediment retention pond. Phase I is expected to cost approximately $204 million with a total project capital cost (Phases I-III) estimated to be approximately $360 million. Phase I construction is expected to take 18-24 months to complete and is expected to be in-service by 2013.

Of the two existing on-site ash treatment basins, Basin #2 is currently the only operational basin at the Ghent station. Basin #1 reached its maximum desired capacity in 1995. Basin #2 was put into service in 1995 with a storage capacity of 2,580 acre-feet. In Case No. 2002-00208, KU advised the Commission that Basin #2 would be constructed in two phases. Detailed bids indicated that the two phase construction to elevation 800 feet had a projected total cost of $25.9 million (2002 dollars), while construction to 800 feet in one project had a total cost of $17.3 million. To take advantage of this significant cost savings, KU modified the construction project and undertook a single project to elevate the dike to 800 feet. As mentioned in Exhibit CRS-3 of Mr. Schram's testimony (the Coal Combustion Byproduct Plan for the Ghent station), vertical expansion of Basin #2 beyond 800 feet at Ghent was determined to be cost prohibitive.

Project 30 (Phase I of the proposed new landfill at the Ghent generating station) includes the following scope of work:

1. **Initial Siting Study** (Completed) – This phase evaluated various CCP storage locations on existing Ghent property and the area surrounding the plant. Initially, 42 landfill and impoundment scenarios were evaluated during this study.

2. **Conceptual Design** (Completed) – This phase took the results of the Initial Siting Study and developed 5 storage alternatives and provided scope of work estimates and net present value evaluations. Based on this data the best storage alternative was chosen, Case #37 – Single 25 year, landfill located on both existing plant and non-plant property.

3. **Final Design** (In Progress) – This phase will design and permit Case #37. Work in this phase will include the landfill design/permitting, wetlands/stream mitigation, transmission/distribution line relocation design, various environmental studies, etc. The goal of this phase is to obtain the construction permits, develop Issued for Construction drawings and specifications for all phases, as well as develop the landfill O&M manual.

4. **Phase I Construction** – Once the Certificate of Public Convenience and Necessity ("CPCN") and the permits have been received, a contractor will be chosen to perform the following (this is a high level list of activities):

- Mobilization
- Clearing and grubbing of the landfill and borrow areas
- Construction of stormwater/sediment ponds
- Grade work to attain the proper subgrade of the landfill
- Development of the borrow site(s)
- Installation of the liner system
- Installation of the leachate collection system, ponds, as well as the transfer system
- Construction of new site access roads
- Installation of the gypsum fines systems
- Construction of the CCP transfer storage facility across US-42
- Installation of the pipe conveyor
- Construction of the Gypsum Dewatering facility
- Upgrades to existing CCP transfer systems
- De-mobilization

Exhibit JNV-10 consists of two GAI Consultants reports on the initial siting study and conceptual design of the Ghent station landfill and is on the compact disc included with this testimony. Exhibit JNV-10 provides more details associated with this project.

Q. Is KU requesting a CPCN for the proposed landfill at Ghent (Project 30)?

A. Yes, as discussed in the testimony of Mr. Bellar, KU is requesting a CPCN for Project 30 in Exhibit JNV-1. Project 30 is associated with the construction of a new landfill and supporting systems at the Ghent station.

Q. Why is KU seeking a CPCN for Project 30, the proposed Ghent landfill at this time?

A. As discussed in Exhibit CRS-3 of Mr. Schram's testimony, KU's Ghent station produces three (3) coal combustion byproducts: bottom ash, fly ash and gypsum. The station has two (2) existing on-site treatment basins for ash and two (2) stacking areas for gypsum. Basin #1 is at its maximum desired capacity. As discussed in Exhibit CRS-3, Basin #2 and the gypsum stack facilities are both forecasted to reach their maximum desired capacity in 2012. In accordance with the CCP Strategy and the analysis presented in Mr. Schram's testimony, the recommended long-term CCP management alternative is Project 30, a landfill for all CCP material. The preliminary construction schedule for this project requires construction of the landfill to begin in 2010. As such, KU is requesting a CPCN in support of this project.

Q. What alternatives to the proposed project were evaluated?

A. The Initial Siting Study identified 42 potential alternatives based on combinations of variables including

- storage and CCP transport methods

- site locations
- transmission line relocation needs

Consistent with the CCP Strategy, opportunities for beneficial reuse were also evaluated by the Companies. The beneficial reuse alternatives at Ghent are discussed in Project 33. Mr. Schram's testimony provides details associated with the evaluation of the alternatives at Ghent.

Q. Is the proposed new on-site landfill at Ghent (Project 30) consistent with the Companies' strategy for long-term management of CCP?

A. Yes. The landfill ensures adequate on-site CCP management capacity exists for the long-term and will be constructed in multiple phases. Furthermore, as discussed in Mr. Schram's testimony, analytical assessments have been performed to identify and utilize any cost effective beneficial reuse alternatives in order to minimize environmental impact and promote environmental stewardship.

Q. Is this project a cost-effective means of complying with environmental regulations and permits?

A. Yes. Project 30 provides the best means of compliance with discharge and water quality regulations. Mr. Schram's testimony provides details associated with the economics of this project.

Project 31 -- Trimble County Station
Ash Treatment Basin and Gypsum Storage Pond

Q. Please describe the Trimble County Station Ash Treatment Basin and Gypsum Storage Pond (Project 31), the anticipated cost and the associated timeline.

A. The primary CCP managed at the Trimble County station are bottom ash, fly ash and gypsum, all of which are currently managed either through treatment in the 85 acre

EXHIBIT D

Revenue Requirments Summary
Gypsum Disposal at Sterling Materials

				2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Revenue Requirement														
Eligible Plant				$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 203,254,220	$ 203,969,979	$ 203,969,979	$ 248,969,979
Less Gypsum Plant				$ -	$ (14,090,000)	$ (40,060,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (98,110,000)
Revised Eligible Plant				$ 4,321,671	$ 32,388,846	$ 65,425,803	$ 124,467,356	$ 138,023,918	$ 148,831,953	$ 149,468,976	$ 150,144,220	$ 150,859,979	$ 150,859,979	$ 150,859,979
Less Accumulated Depreciation								$ (3,690,414)	$ (7,842,826)	$ (12,013,010)	$ (16,202,034)	$ (20,411,027)	$ (24,620,020)	$ (28,829,013)
Less Deferred Tax Balance								$ (528,683)	$ (2,857,926)	$ (4,921,730)	$ (6,731,945)	$ (8,301,165)	$ (9,641,200)	$ (11,289,441)
Environmental Compliance Rate Base				$ 4,321,671	$ 32,388,846	$ 65,425,803	$ 124,467,356	$ 133,804,821	$ 138,131,202	$ 132,534,236	$ 127,210,241	$ 122,147,788	$ 116,598,759	$ 110,741,525
Rate of Return				11.1%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
Assumed Tons (1.155)	1,000,000			$ 480,509	$ 3,553,056	$ 7,177,211	$ 13,654,069	$ 14,678,389	$ 15,152,993	$ 14,539,006	$ 13,954,963	$ 13,399,612	$ 12,790,884	$ 12,148,345
86.7500% Cubic yards	867,500													
Operating Expenses				$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,556
less Gypsum to On-site Landfill								$ (8,887,032)	$ (9,420,254)	$ (9,985,469)	$ (10,584,598)	$ (11,219,674)	$ (11,892,854)	$ (12,606,425)
Gypsum to Sterling	**$ 10.50**							$ 10,500,000	$ 11,130,000	$ 11,797,800	$ 12,505,668	$ 13,256,008	$ 14,051,369	$ 14,894,451
Net Operating				$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 20,616,276	$ 21,853,253	$ 23,164,448	$ 24,554,314	$ 26,027,573	$ 27,589,228	$ 29,244,581
Annual Depreciation								$ 3,690,414	$ 4,152,411	$ 4,170,184	$ 4,189,024	$ 4,208,993	$ 4,208,993	$ 4,208,993
Annual Property Tax Expense					$ 6,483	$ 69,718	$ 158,229	$ 266,366	$ 279,017	$ 286,798	$ 279,274	$ 271,751	$ 264,317	$ 264,317
Total OE				$ 84,800	$ 127,832	$ 198,348	$ 294,577	$ 24,573,056	$ 26,284,681	$ 27,621,430	$ 29,022,612	$ 30,508,317	$ 32,062,537	$ 33,717,891
Total E(m) Gypsum to Sterling		$ 476,298,826		$ 565,309	$ 3,680,888	$ 7,375,559	$ 13,948,646	$ 39,251,445	$ 41,437,674	$ 42,160,436	$ 42,977,575	$ 43,907,929	$ 44,853,421	$ 45,866,236
Total E(m) - Project 30 (See below)		$ 555,782,375		$ 565,309	$ 5,226,225	$ 11,769,378	$ 19,773,528	$ 44,705,239	$ 46,600,208	$ 46,976,843	$ 47,458,553	$ 48,044,547	$ 48,653,648	$ 55,312,476
Difference	**PVRR**	**7.81%**	**$ (79,483,549)**	$ -	$ (1,545,337)	$ (4,393,819)	$ (5,824,882)	$ (5,453,794)	$ (5,162,534)	$ (4,816,407)	$ (4,480,978)	$ (4,136,618)	$ (3,800,227)	$ (9,446,240)
Date				12/31/2009	12/31/2010	12/31/2011	12/31/2012	12/31/2013	12/31/2014	12/31/2015	12/31/2016	12/31/2017	12/31/2018	12/31/2019

Revenue Requirments Summary
2009 Amended Plan
Project 30 Ghent Landfill Phase I
See Exhibit B

				2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
														Start Phase II
Revenue Requirement														$ 40,000,000
Eligible Plant				$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 203,254,220	$ 203,969,979	$ 203,969,979	$ 248,969,979
Less Gypsum Plant				$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Revised Eligible Plant				$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 203,254,220	$ 203,969,979	$ 203,969,979	$ 248,969,979
Less Accumulated Depreciation								$ (5,110,443)	$ (10,744,623)	$ (16,396,576)	$ (22,067,369)	$ (27,758,131)	$ (33,448,893)	$ (40,395,155)
Less Deferred Tax Balance								$ (732,114)	$ (3,915,341)	$ (6,717,677)	$ (9,168,992)	$ (11,289,232)	$ (13,098,586)	$ (15,818,743)
Environmental Compliance Rate Base				$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 185,291,361	$ 187,281,989	$ 179,464,723	$ 172,017,859	$ 164,922,616	$ 157,422,500	$ 192,756,081
Rate of Return				11.1%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
				$ 480,509	$ 5,098,729	$ 11,571,793	$ 19,480,236	$ 20,326,462	$ 20,544,834	$ 19,687,280	$ 18,870,359	$ 18,092,011	$ 17,269,248	$ 21,145,342
Operating Expenses				$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,555.78
less Gypsum to On-site Landfill								$ -	$ -	$ -	$ -	$ -	$ -	$ -
Gypsum to Sterling								$ -	$ -	$ -	$ -	$ -	$ -	$ -
Net Operating				$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,556
Annual Depreciation								$ 5,110,443	$ 5,634,180	$ 5,651,953	$ 5,670,793	$ 5,690,762	$ 5,690,762	$ 6,946,262
Annual Property Tax Expense					$ 6,483	$ 69,718	$ 158,229	$ 266,366	$ 279,017	$ 286,798	$ 279,274	$ 271,751	$ 264,317	$ 264,317
Total OE				$ 84,800	$ 127,832	$ 198,348	$ 294,577	$ 24,380,117	$ 26,056,704	$ 27,290,868	$ 28,583,311	$ 29,953,752	$ 31,385,792	$ 34,167,134
Total E(m) Gypsum to On-site Landfill as Calculated				$ 565,309	$ 5,226,561	$ 11,770,141	$ 19,774,813	$ 44,706,579	$ 46,601,539	$ 46,978,148	$ 47,453,670	$ 48,045,763	$ 48,655,040	$ 55,312,476
Total E(m) Gypsum to On-site Landfill per KU				$ 565,309	$ 5,226,225	$ 11,769,378	$ 19,773,528	$ 44,705,239	$ 46,600,208	$ 46,976,843	$ 47,458,553	$ 48,044,547	$ 48,653,648	
Calculation Check Difference				$ -	$ 336	$ 763	$ 1,285	$ 1,340	$ 1,331	$ 1,305	$ (4,883)	$ 1,216	$ 1,392	
Site E/F Hauling cost of Ash 2.25 mile round trip								$ 2,822,723	$ 2,992,086	$ 3,171,612	$ 3,361,908	$ 3,563,623	$ 3,777,440	$ 4,004,087
Haul Road Maintenance								$ 53,529	$ 56,741	$ 60,145	$ 63,754	$ 67,579	$ 71,634	$ 75,932
Total								$ 2,876,252	$ 3,048,827	$ 3,231,757	$ 3,425,662	$ 3,631,202	$ 3,849,074	$ 4,080,018
Reduce by 50% for Site M				$ -	$ -	$ -	$ -	$ 1,438,126	$ 1,524,414	$ 1,615,878	$ 1,712,831	$ 1,815,601	$ 1,924,537	$ 2,040,009
Difference	**PVRR**	**7.81%**	**$ (21,865,903)**											

Revenue Requirments Summary
Gypsum Disposal at Sterling Materials

			2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
													Start Phase II
Revenue Requirement													$ 40,000,000
Eligible Plant			$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 323,969,979	$ 353,969,979	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
Less Gypsum Plant			$ (133,110,000)	$ (133,110,000)	$ (133,110,000)	$ (133,110,000)	$ (133,110,000)	$ (173,110,000)	$ (203,110,000)	$ (209,140,021)	$ (209,140,021)	$ (209,140,021)	$ (169,140,021)
Revised Eligible Plant			$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 190,859,979
Less Accumulated Depreciation			$ (33,038,006)	$ (37,246,999)	$ (41,455,992)	$ (45,664,985)	$ (49,873,978)	$ (54,082,972)	$ (58,291,965)	$ (62,500,958)	$ (66,709,951)	$ (70,918,944)	$ (76,243,937)
Less Deferred Tax Balance			$ (12,937,683)	$ (14,585,925)	$ (16,234,167)	$ (17,882,408)	$ (19,530,650)	$ (21,178,892)	$ (22,827,133)	$ (24,475,375)	$ (26,123,617)	$ (27,771,858)	$ (29,857,126)
Environmental Compliance Rate Base			$ 104,884,290	$ 99,027,055	$ 93,169,820	$ 87,312,585	$ 81,455,351	$ 75,598,116	$ 69,740,881	$ 63,883,646	$ 58,026,411	$ 52,169,177	$ 84,758,916
Rate of Return			10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
Assumed Tons (1.155)	1,000,000		$ 11,505,807	$ 10,863,268	$ 10,220,729	$ 9,578,191	$ 8,935,652	$ 8,293,113	$ 7,650,575	$ 7,008,036	$ 6,365,497	$ 5,722,959	$ 9,298,053
86.7500% Cubic yards	867,500												
Operating Expenses			$ 28,573,949	$ 30,288,386	$ 32,105,689	$ 34,032,031	$ 36,073,952	$ 38,238,390	$ 40,532,693	$ 42,964,655	$ 45,542,534	$ 48,275,086	$ 51,171,591
less Gypsum to On-site Landfill			$ (13,362,811)	$ (14,164,579)	$ (15,014,454)	$ (15,915,321)	$ (16,870,241)	$ (17,882,455)	$ (18,955,402)	$ (20,092,727)	$ (21,298,290)	$ (22,576,188)	$ (23,930,759)
Gypsum to Sterling	**$ 10.50**		$ 15,788,118	$ 16,735,405	$ 17,739,529	$ 18,803,901	$ 19,932,135	$ 21,128,063	$ 22,395,747	$ 23,739,492	$ 25,163,861	$ 26,673,693	$ 28,274,114
Net Operating			$ 30,999,256	$ 32,859,211	$ 34,830,764	$ 36,920,610	$ 39,135,847	$ 41,483,997	$ 43,973,037	$ 46,611,419	$ 49,408,105	$ 52,372,591	$ 55,514,946
Annual Depreciation			$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 5,324,993
Annual Property Tax Expense			$ 322,630	$ 367,985	$ 367,985	$ 367,985	$ 367,985	$ 367,985	$ 419,820	$ 458,696	$ 466,510	$ 466,510	$ 466,510
Total OE			$ 35,530,879	$ 37,436,190	$ 39,407,743	$ 41,497,588	$ 43,712,825	$ 46,060,976	$ 48,601,850	$ 51,279,108	$ 54,083,607	$ 57,048,094	$ 61,306,449
Total E(m) Gypsum to Sterling		$ 476,298,826	$ 47,036,686	$ 48,299,458	$ 49,628,472	$ 51,075,779	$ 52,648,477	$ 54,354,089	$ 56,252,425	$ 58,287,144	$ 60,449,105	$ 62,771,052	$ 70,604,502
Total E(m) - Project 30 (See below)		$ 555,782,375	$ 60,594,706	$ 61,145,021	$ 61,752,847	$ 62,469,712	$ 63,302,156	$ 69,590,749	$ 74,557,268	$ 76,324,534	$ 77,376,925	$ 78,576,175	$ 79,939,378
Difference **PVRR**	**7.81%**	**$ (79,483,549)**	$ (13,558,020)	$ (12,845,563)	$ (12,124,375)	$ (11,393,932)	$ (10,653,679)	$ (15,236,660)	$ (18,304,843)	$ (18,037,390)	$ (16,927,821)	$ (15,805,123)	$ (9,334,876)
Date			12/31/2020	12/31/2021	12/31/2022	12/31/2023	12/31/2024	12/31/2025	12/31/2026	12/31/2027	12/31/2028	12/31/2029	12/31/2030

Revenue Requirments Summary
2009 Amended Plan
Project 30 Ghent Landfill Phase I
See Exhibit B

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
						Start Phase III					
Revenue Requirement	$ 40,000,000					$ 40,000,000	$ 30,000,000	$ 6,030,021			
Eligible Plant	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 323,969,979	$ 353,969,979	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
Less Gypsum Plant	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Revised Eligible Plant	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 323,969,979	$ 353,969,979	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
Less Accumulated Depreciation	$ (48,317,917)	$ (56,240,679)	$ (64,163,440)	$ (72,086,202)	$ (80,008,964)	$ (89,047,726)	$ (98,923,488)	$ (108,967,487)	$ (119,011,486)	$ (129,055,485)	$ (139,099,485)
Less Deferred Tax Balance	$ (18,921,296)	$ (22,023,850)	$ (25,126,403)	$ (28,228,957)	$ (31,331,510)	$ (34,871,089)	$ (38,738,438)	$ (42,671,668)	$ (46,604,898)	$ (50,538,128)	$ (54,471,358)
Environmental Compliance Rate Base	$ 216,730,766	$ 205,705,451	$ 194,680,135	$ 183,654,820	$ 172,629,505	$ 200,051,164	$ 216,308,054	$ 208,360,845	$ 194,383,616	$ 180,406,387	$ 166,429,157
Rate of Return	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
	$ 23,775,365	$ 22,565,888	$ 21,356,411	$ 20,146,934	$ 18,937,457	$ 21,945,613	$ 23,728,993	$ 22,857,185	$ 21,323,883	$ 19,790,581	$ 18,257,279
Operating Expenses	$ 28,573,949.13	$ 30,288,386.07	$ 32,105,689.24	$ 34,032,030.59	$ 36,073,952.43	$ 38,238,389.57	$ 40,532,692.95	$ 42,964,654.53	$ 45,542,533.80	$ 48,275,085.83	$ 51,171,590.97
less Gypsum to On-site Landfill	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Gypsum to Sterling	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Net Operating	$ 28,573,949	$ 30,288,386	$ 32,105,689	$ 34,032,031	$ 36,073,952	$ 38,238,390	$ 40,532,693	$ 42,964,655	$ 45,542,534	$ 48,275,086	$ 51,171,591
Annual Depreciation	$ 7,922,762	$ 7,922,762	$ 7,922,762	$ 7,922,762	$ 7,922,762	$ 9,038,762	$ 9,875,762	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999
Annual Property Tax Expense	$ 322,630	$ 367,985	$ 367,985	$ 367,985	$ 367,985	$ 419,820	$ 458,696	$ 466,510	$ 466,510	$ 466,510	$ 466,510
Total OE	$ 36,819,341	$ 38,579,133	$ 40,396,436	$ 42,322,778	$ 44,364,700	$ 47,645,137	$ 50,828,274	$ 53,467,349	$ 56,053,043	$ 58,785,595	$ 61,682,100
Total E(m) Gypsum to On-site Landfill as Calculated	$ 60,594,706	$ 61,145,021	$ 61,752,847	$ 62,469,712	$ 63,302,156	$ 69,590,749	$ 74,557,268	$ 76,324,534	$ 77,376,925	$ 78,576,175	$ 79,939,378
Total E(m) Gypsum to On-site Landfill per KU											
Calculation Check Difference											
Site E/F Hauling cost of Ash 2.25 mile round trip	$ 4,244,332	$ 4,498,992	$ 4,768,931	$ 5,055,067	$ 5,358,371	$ 5,679,873	$ 6,020,666	$ 6,381,906	$ 6,764,820	$ 7,170,709	$ 7,600,952
Haul Road Maintenance	$ 80,488	$ 85,317	$ 90,436	$ 95,862	$ 101,614	$ 107,711	$ 114,174	$ 121,024	$ 128,285	$ 135,982	$ 144,141
Total	$ 4,324,820	$ 4,584,309	$ 4,859,367	$ 5,150,929	$ 5,459,985	$ 5,787,584	$ 6,134,839	$ 6,502,930	$ 6,893,105	$ 7,306,692	$ 7,745,093
Reduce by 50% for Site M	$ 2,162,410	$ 2,292,154	$ 2,429,684	$ 2,575,465	$ 2,729,993	$ 2,893,792	$ 3,067,420	$ 3,251,465	$ 3,446,553	$ 3,653,346	$ 3,872,547
Difference **PVRR** **7.81%** **$ (21,865,903)**											

Revenue Requirments Summary
Gypsum Disposal at Sterling Materials

			2031	2032	2033	2034	2035	2036	2037	
Revenue Requirement			$ 40,000,000							
Eligible Plant			$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	
Less Gypsum Plant			$ (129,140,021)	$ (129,140,021)	$ (129,140,021)	$ (129,140,021)	$ (129,140,021)	$ (129,140,021)	$ (129,140,021)	
Revised Eligible Plant			$ 230,859,979	$ 230,859,979	$ 230,859,979	$ 230,859,979	$ 230,859,979	$ 230,859,979	$ 230,859,979	
Less Accumulated Depreciation			$ (82,684,930)	$ (89,125,923)	$ (95,566,916)	$ (102,007,909)	$ (108,448,902)	$ (114,889,895)	$ (121,330,888)	
Less Deferred Tax Balance			$ (32,379,419)	$ (34,901,711)	$ (37,424,004)	$ (39,946,297)	$ (42,468,590)	$ (44,990,883)	$ (47,513,176)	
Environmental Compliance Rate Base			$ 115,795,631	$ 106,832,345	$ 97,869,059	$ 88,905,773	$ 79,942,487	$ 70,979,202	$ 62,015,916	
Rate of Return			10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	
Assumed	Tons (1.155)	1,000,000	$ 12,702,781	$ 11,719,508	$ 10,736,236	$ 9,752,963	$ 8,769,691	$ 7,786,418	$ 6,803,146	
86.7500%	Cubic yards	867,500								
Operating Expenses			$ 54,241,886	$ 57,496,400	$ 60,946,184	$ 64,602,955	$ 68,479,132	$ 72,587,880	$ 76,943,153	
less Gypsum to On-site Landfill			$ (25,366,604)	$ (26,888,601)	$ (28,501,917)	$ (30,212,032)	$ (32,024,754)	$ (33,946,239)	$ (35,983,013)	
Gypsum to Sterling		**$ 10.50**	$ 29,970,561	$ 31,768,795	$ 33,674,922	$ 35,695,418	$ 37,837,143	$ 40,107,371	$ 42,513,814	
Net Operating			$ 58,845,843	$ 62,376,594	$ 66,119,189	$ 70,086,341	$ 74,291,521	$ 78,749,012	$ 83,473,953	
Annual Depreciation			$ 6,440,993	$ 6,440,993	$ 6,440,993	$ 6,440,993	$ 6,440,993	$ 6,440,993	$ 6,440,993	
Annual Property Tax Expense			$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	
Total OE			$ 65,753,346	$ 69,284,096	$ 73,026,692	$ 76,993,843	$ 81,199,024	$ 85,656,515	$ 90,381,456	
Total E(m) Gypsum to Sterling		$ 476,298,826	$ 78,456,126	$ 81,003,604	$ 83,762,928	$ 86,746,807	$ 89,968,715	$ 93,442,933	$ 97,184,602	$ 1,547,998,022
Total E(m) - Project 30 (See below)		$ 555,782,375	$ 81,476,372	$ 83,197,583	$ 85,114,065	$ 87,237,534	$ 89,580,409	$ 92,155,855	$ 94,977,826	$ 1,754,455,070
Difference	**PVRR**	**7.81% $ (79,483,549)**	$ (3,020,245)	$ (2,193,978)	$ (1,351,137)	$ (490,727)	$ 388,306	$ 1,287,079	$ 2,206,776	$ (206,457,048)
Date			12/31/2031	12/31/2032	12/31/2033	12/31/2034	12/31/2035	12/31/2036	12/31/2037	
										$ (206,457,048)

Revenue Requirments Summary
2009 Amended Plan
Project 30 Ghent Landfill Phase I
See Exhibit B

			2031	2032	2033	2034	2035	2036	2037
Revenue Requirement									
Eligible Plant			$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
Less Gypsum Plant			$ -	$ -	$ -	$ -	$ -	$ -	$ -
Revised Eligible Plant			$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
Less Accumulated Depreciation			$ (149,143,484)	$ (159,187,483)	$ (169,231,482)	$ (179,275,482)	$ (189,319,481)	$ (199,363,480)	$ (209,407,479)
Less Deferred Tax Balance			$ (58,404,588)	$ (62,337,818)	$ (66,271,048)	$ (70,204,279)	$ (74,137,509)	$ (78,070,739)	$ (82,003,969)
Environmental Compliance Rate Base			$ 152,451,928	$ 138,474,699	$ 124,497,469	$ 110,520,240	$ 96,543,010	$ 82,565,781	$ 68,588,552
Rate of Return			10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
			$ 16,723,976	$ 15,190,674	$ 13,657,372	$ 12,124,070	$ 10,590,768	$ 9,057,466	$ 7,524,164
Operating Expenses			$ 54,241,886.43	$ 57,496,399.62	$ 60,946,183.60	$ 64,602,954.61	$ 68,479,131.89	$ 72,587,879.80	$ 76,943,152.59
less Gypsum to On-site Landfill			$ -	$ -	$ -	$ -	$ -	$ -	$ -
Gypsum to Sterling			$ -	$ -	$ -	$ -	$ -	$ -	$ -
Net Operating			$ 54,241,886	$ 57,496,400	$ 60,946,184	$ 64,602,955	$ 68,479,132	$ 72,587,880	$ 76,943,153
Annual Depreciation			$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999
Annual Property Tax Expense			$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510
Total OE			$ 64,752,395	$ 68,006,908	$ 71,456,692	$ 75,113,463	$ 78,989,641	$ 83,098,389	$ 87,453,661
Total E(m) Gypsum to On-site Landfill as Calculated			$ 81,476,372	$ 83,197,583	$ 85,114,065	$ 87,237,534	$ 89,580,409	$ 92,155,855	$ 94,977,826
Total E(m) Gypsum to On-site Landfill per KU									
Calculation Check Difference									
Site E/F	Hauling cost of Ash 2.25 mile round trip		$ 8,057,009	$ 8,540,429	$ 9,052,855	$ 9,596,026	$ 10,171,788	$ 10,782,095	$ 11,429,021
	Haul Road Maintenance		$ 152,790	$ 161,957	$ 171,675	$ 181,975	$ 192,894	$ 204,467	$ 216,735
Total			$ 8,209,799	$ 8,702,387	$ 9,224,530	$ 9,778,002	$ 10,364,682	$ 10,986,563	$ 11,645,756
Reduce by 50% for Site M			$ 4,104,899	$ 4,351,193	$ 4,612,265	$ 4,889,001	$ 5,182,341	$ 5,493,281	$ 5,822,878
Difference	**PVRR**	**7.81% $ (21,865,903)**							

EXHIBIT E

GHENT LANDFILL (PHASE I)

Operating & Maintenance Costs ($)	2010	2011	2012	2013	2014	2015	2016	2017
Ground Water Sampling and Testing	14,045	14,888	15,781	16,728	17,731	18,795	19,923	21,118
Leachate Management	-	-	-	83,639	88,657	93,977	99,616	105,592
Surveying (As-builts)	16,292	17,270	18,306	19,404	20,569	21,803	23,111	24,497
Pump House Fly Ash and Bottom Ash Segregation	75,843	80,394	85,217	-	-	-	-	-
Dry Ash/Pyrites Handling System - Conveyor	-	-	-	2,161,234	2,290,908	2,428,363	2,574,065	2,728,509
Dry Gypsum Handling System	-	-	-	682,495	723,445	766,851	812,863	861,634
Leachate Pump House	15,169	16,079	17,043	18,066	19,150	20,299	21,517	22,808
Hauling Fly Ash and Bottom Ash to Landfill								
Loading	-	-	-	1,338,226	1,418,519	1,503,630	1,593,848	1,689,479
Phase 1 - 2.25 Mile Round Trip	-	-	-	2,822,723	2,992,087	3,171,612	3,361,909	3,563,623
Hauling Gypsum to Landfill								
Loading	-	-	-	1,746,384	1,851,167	1,962,237	2,079,972	2,204,770
Phase 1 - 2.25 Mile Round Trip	-	-	-	3,997,156	4,236,986	4,491,205	4,760,677	5,046,318
Landfilling Fly Ash and Bottom Ash	-	-	-	2,408,806	2,553,334	2,706,534	2,868,927	3,041,062
Landfilling Gypsum	-	-	-	3,143,492	3,332,101	3,532,027	3,743,949	3,968,586
Ash/Gypsum Placement QA/QC	-	-	-	54,198	57,450	60,897	64,551	68,424
Maintenance								
Landfills	-	-	-	301,101	319,167	338,317	358,616	380,133
Haul Roads	-	-	-	53,529	56,741	60,145	63,754	67,579
Dust Control	-	-	-	156,126	165,494	175,424	185,949	197,106
TOTAL	**121,349**	**128,630**	**136,348**	**19,003,308**	**20,143,507**	**21,352,117**	**22,633,244**	**23,991,239**

EXHIBIT F

GHENT LANDFILL (PHASE I)

Capital Expenditures ($ million)	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Total
Property Acquisition											
Disposal Site(s)	-	-	4.66	-	-	-	-	-	-	-	**4.66**
Overhead Electric Line(s)	-	-	0.03	-	-	-	-	-	-	-	**0.03**
Buffer Zones	-	-	-	-	2.37	-	-	-	-	-	**2.37**
Higher End House Acquisition	-	-	1.40	-	-	-	-	-	-	-	**1.40**
Engineering, Permits and Fees, and Construction Documents	0.46	2.00	-	-	-	-	-	-	-	-	**2.46**
Stream and Wetland Mitigation	-	-	4.14	-	-	-	-	-	-	-	**4.14**
Ground Water Monitoring System	-	0.27	-	-	-	-	-	-	-	-	**0.27**
Transmission Line Relocation Design, Engineering, and Construction	-	-	-	-	0.82	-	-	-	-	-	**0.82**
CCWD Relocation	-	-	0.12	-	-	-	-	-	-	-	**0.12**
Pump House Fly Ash and Bottom Ash Segregation	-	0.72	-	-	-	-	-	-	-	-	**0.72**
Dry Ash/Pyrites Handling System - Conveyor	-	-	16.29	27.08	38.93	-	-	-	-	-	**82.31**
Dry Gypsum Handling System	-	-	7.79	15.96	13.05	-	-	-	-	-	**36.80**
Gypsum Fines Project	-	0.74	6.30	6.30	-	-	-	-	-	-	**13.34**
Initial Site Preparation											
Clearing, Grubbing, and Site Preparation	-	-	-	0.62	0.65	0.69	-	-	-	-	**1.96**
Stripping and Stockpiling Soil	-	-	-	0.50	0.53	0.56	-	-	-	-	**1.58**
Hauling Topsoil - Phase 1 - 1.0 Mile Round Trip	-	-	-	0.19	0.20	0.21	-	-	-	-	**0.59**
Erosion and Sedimentation Controls	-	-	-	0.06	0.06	0.06	-	-	-	-	**0.18**
Sedimentation Pond	-	-	-	0.33	-	-	-	-	-	-	**0.33**
Collection Channels (Fabriform)	-	-	-	0.36	0.38	0.40	-	-	-	-	**1.15**
Diversion Channels (Riprap)	-	-	-	0.11	0.12	0.12	-	-	-	-	**0.35**
Liner Subgrade Preparation											
Scraping and Hauling - 0.25 Mile Round Trip	-	-	-	0.32	0.33	0.35	-	-	-	-	**1.01**
Excavating	-	-	-	0.15	0.16	0.17	-	-	-	-	**0.49**
Hauling Subgrade - Phase 1 - 1.0 Mile Round Trip	-	-	-	0.31	0.33	0.35	-	-	-	-	**0.99**
Spreading and Compacting Subgrade	-	-	-	0.49	0.52	0.55	-	-	-	-	**1.57**
Subgrade QA/QC	-	-	-	0.24	0.25	0.27	-	-	-	-	**0.76**
Gypsum Dewatering Facility Earthwork											
Excavating	-	-	-	0.73	-	-	-	-	-	-	**0.73**
Hauling Earth - 1.0 Mile Round Trip	-	-	-	1.53	-	-	-	-	-	-	**1.53**
Spreading and Compacting	-	-	-	1.21	-	-	-	-	-	-	**1.21**
Earthwork QA/QC	-	-	-	0.24	-	-	-	-	-	-	**0.24**

GHENT LANDFILL (PHASE I)

Capital Expenditures ($ million)	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Total
Haul Roads											
CCP Disposal On-Landfill Haul Road (60 Feet Wide)	-	-	-	-	0.61	0.05	0.05	0.05	0.05	0.06	**0.87**
CCP Disposal Off-Landfill Haul Road (60 Feet Wide)	-	-	-	0.30	1.03	-	-	-	-	-	**1.33**
Liner											
Landfill - Single Liner System	-	-	-	-	7.00	7.43	7.87	-	-	-	**22.30**
Liner System QA/QC	-	-	-	-	1.23	1.30	1.38	-	-	-	**3.90**
Leachate Collector Line	-	-	-	-	0.19	0.20	0.21	-	-	-	**0.60**
On-Landfill Leachate Trunk Line	-	-	-	-	0.08	0.08	0.09	-	-	-	**0.25**
Off-Landfill Leachate Trunk Line	-	-	-	-	0.07	-	-	-	-	-	**0.07**
Leachate Storage Pond	-	-	-	-	0.29	-	-	-	-	-	**0.29**
Leachate Pump House	-	-	-	-	0.09	-	-	-	-	-	**0.09**
Leachate Pipe Line	-	-	-	-	0.08	-	-	-	-	-	**0.08**
Underdrains - Trunk	-	-	-	-	0.17	0.18	0.19	-	-	-	**0.54**
Underdrains - Collector	-	-	-	-	0.11	0.12	0.12	-	-	-	**0.35**
Cap											
Intermediate Soil Cover	-	-	-	-	-	-	0.28	0.30	0.32	0.34	**1.24**
Cap System	-	-	-	-	-	-	0.22	0.23	0.25	0.26	**0.96**
Cap System QA/QC	-	-	-	-	-	-	0.03	0.03	0.03	0.03	**0.12**
Total	**0.46**	**3.72**	**40.73**	**57.01**	**69.65**	**13.10**	**10.44**	**0.62**	**0.65**	**0.69**	**197.07**
E.ON-US Overheads	0.02	0.13	1.43	2.00	2.44	0.46	0.37	0.02	0.02	0.02	**6.90**
Total with Overheads	**0.47**	**3.85**	**42.16**	**59.01**	**72.09**	**13.56**	**10.81**	**0.64**	**0.68**	**0.72**	**203.97**

EXHIBIT G

Revenue Requirments Summary
Gypsum Disposal at Sterling Materials

			2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Revenue Requirement													
Eligible Plant			$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 203,254,220	$ 203,969,979	$ 203,969,979	$ 248,969,979
Less Gypsum Plant			$ -	$ (14,090,000)	$ (40,060,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (98,110,000)
Revised Eligible Plant			$ 4,321,671	$ 32,388,846	$ 65,425,803	$ 124,467,356	$ 138,023,918	$ 148,831,953	$ 149,468,976	$ 150,144,220	$ 150,859,979	$ 150,859,979	$ 150,859,979
Less Accumulated Depreciation							$ (3,690,414)	$ (7,842,826)	$ (12,013,010)	$ (16,202,034)	$ (20,411,027)	$ (24,620,020)	$ (28,829,013)
Less Deferred Tax Balance							$ (528,683)	$ (2,857,926)	$ (4,921,730)	$ (6,731,945)	$ (8,301,165)	$ (9,641,200)	$ (11,289,441)
Environmental Compliance Rate Base			$ 4,321,671	$ 32,388,846	$ 65,425,803	$ 124,467,356	$ 133,804,821	$ 138,131,202	$ 132,534,236	$ 127,210,241	$ 122,147,788	$ 116,598,759	$ 110,741,525
Rate of Return			11.1%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
Assumed Tons (1.155)	1,000,000		$ 480,509	$ 3,553,056	$ 7,177,211	$ 13,654,069	$ 14,678,389	$ 15,152,993	$ 14,539,006	$ 13,954,963	$ 13,399,612	$ 12,790,884	$ 12,148,345
86.7500% Cubic yards	867,500												
Operating Expenses			$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,556
less Gypsum to On-site Landfill							$ (8,887,032)	$ (9,420,254)	$ (9,985,469)	$ (10,584,598)	$ (11,219,674)	$ (11,892,854)	$ (12,606,425)
Gypsum to Sterling	**$ 9.00**						$ 9,000,000	$ 9,540,000	$ 10,112,400	$ 10,719,144	$ 11,362,293	$ 12,044,030	$ 12,766,672
Net Operating			$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,116,276	$ 20,263,253	$ 21,479,048	$ 22,767,790	$ 24,133,858	$ 25,581,889	$ 27,116,803
Annual Depreciation							$ 3,690,414	$ 4,152,411	$ 4,170,184	$ 4,189,024	$ 4,208,993	$ 4,208,993	$ 4,208,993
Annual Property Tax Expense				$ 6,483	$ 69,718	$ 158,229	$ 266,366	$ 279,017	$ 286,798	$ 279,274	$ 271,751	$ 264,317	$ 264,317
Total OE			$ 84,800	$ 127,832	$ 198,348	$ 294,577	$ 23,073,056	$ 24,694,681	$ 25,936,030	$ 27,236,088	$ 28,614,602	$ 30,055,199	$ 31,590,112
Total E(m) Gypsum to Sterling		$ 453,492,164	$ 565,309	$ 3,680,888	$ 7,375,559	$ 13,948,646	$ 37,751,445	$ 39,847,674	$ 40,475,036	$ 41,191,051	$ 42,014,214	$ 42,846,083	$ 43,738,457
Total E(m) - Project 30 (See below)		$ 555,782,375	$ 565,309	$ 5,226,225	$ 11,769,378	$ 19,773,528	$ 44,705,239	$ 46,600,208	$ 46,976,843	$ 47,458,553	$ 48,044,547	$ 48,653,648	$ 55,312,476
Difference **PVRR**	**7.81%**	**$ (102,290,212)**	$ -	$ (1,545,337)	$ (4,393,819)	$ (5,824,882)	$ (6,953,794)	$ (6,752,534)	$ (6,501,807)	$ (6,267,502)	$ (6,030,333)	$ (5,807,565)	$ (11,574,019)
Date			12/31/2009	12/31/2010	12/31/2011	12/31/2012	12/31/2013	12/31/2014	12/31/2015	12/31/2016	12/31/2017	12/31/2018	12/31/2019

Revenue Requirments Summary
2009 Amended Plan
Project 30 Ghent Landfill Phase I
See Exhibit B

			2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
													Start Phase II
Revenue Requirement													$ 40,000,000
Eligible Plant			$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 203,254,220	$ 203,969,979	$ 203,969,979	$ 248,969,979
Less Gypsum Plant			$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Revised Eligible Plant			$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 203,254,220	$ 203,969,979	$ 203,969,979	$ 248,969,979
Less Accumulated Depreciation							$ (5,110,443)	$ (10,744,623)	$ (16,396,576)	$ (22,067,369)	$ (27,758,131)	$ (33,448,893)	$ (40,395,155)
Less Deferred Tax Balance							$ (732,114)	$ (3,915,341)	$ (6,717,677)	$ (9,168,992)	$ (11,289,232)	$ (13,098,586)	$ (15,818,743)
Environmental Compliance Rate Base			$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 185,291,361	$ 187,281,989	$ 179,464,723	$ 172,017,859	$ 164,922,616	$ 157,422,500	$ 192,756,081
Rate of Return			11.1%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
			$ 480,509	$ 5,098,729	$ 11,571,793	$ 19,480,236	$ 20,326,462	$ 20,544,834	$ 19,687,280	$ 18,870,359	$ 18,092,011	$ 17,269,248	$ 21,145,342
Operating Expenses			$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,555.78
less Gypsum to On-site Landfill							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Gypsum to Sterling							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Net Operating			$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,556
Annual Depreciation							$ 5,110,443	$ 5,634,180	$ 5,651,953	$ 5,670,793	$ 5,690,762	$ 5,690,762	$ 6,946,262
Annual Property Tax Expense				$ 6,483	$ 69,718	$ 158,229	$ 266,366	$ 279,017	$ 286,798	$ 279,274	$ 271,751	$ 264,317	$ 264,317
Total OE			$ 84,800	$ 127,832	$ 198,348	$ 294,577	$ 24,380,117	$ 26,056,704	$ 27,290,868	$ 28,583,311	$ 29,953,752	$ 31,385,792	$ 34,167,134
Total E(m) Gypsum to On-site Landfill as Calculated			$ 565,309	$ 5,226,561	$ 11,770,141	$ 19,774,813	$ 44,706,579	$ 46,601,539	$ 46,978,148	$ 47,453,670	$ 48,045,763	$ 48,655,040	$ 55,312,476
Total E(m) Gypsum to On-site Landfill per KU			$ 565,309	$ 5,226,225	$ 11,769,378	$ 19,773,528	$ 44,705,239	$ 46,600,208	$ 46,976,843	$ 47,458,553	$ 48,044,547	$ 48,653,648	
Calculation Check Difference			$ -	$ 336	$ 763	$ 1,285	$ 1,340	$ 1,331	$ 1,305	$ (4,883)	$ 1,216	$ 1,392	
Site E/F Hauling cost of Ash 2.25 mile round trip							$ 2,822,723	$ 2,992,086	$ 3,171,612	$ 3,361,908	$ 3,563,623	$ 3,777,440	$ 4,004,087
Haul Road Maintenance							$ 53,529	$ 56,741	$ 60,145	$ 63,754	$ 67,579	$ 71,634	$ 75,932
Total							$ 2,876,252	$ 3,048,827	$ 3,231,757	$ 3,425,662	$ 3,631,202	$ 3,849,074	$ 4,080,018
Reduce by 50% for Site M			$ -	$ -	$ -	$ -	$ 1,438,126	$ 1,524,414	$ 1,615,878	$ 1,712,831	$ 1,815,601	$ 1,924,537	$ 2,040,009
Difference **PVRR**	**7.81%**	**$ (21,865,903)**											

Revenue Requirments Summary
Gypsum Disposal at Sterling Materials

			2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
													Start Phase II
Revenue Requirement													$ 40,000,000
Eligible Plant			$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 323,969,979	$ 353,969,979	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
Less Gypsum Plant			$ (133,110,000)	$ (133,110,000)	$ (133,110,000)	$ (133,110,000)	$ (133,110,000)	$ (173,110,000)	$ (203,110,000)	$ (209,140,021)	$ (209,140,021)	$ (209,140,021)	$ (169,140,021)
Revised Eligible Plant			$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 190,859,979
Less Accumulated Depreciation			$ (33,038,006)	$ (37,246,999)	$ (41,455,992)	$ (45,664,985)	$ (49,873,978)	$ (54,082,972)	$ (58,291,965)	$ (62,500,958)	$ (66,709,951)	$ (70,918,944)	$ (76,243,937)
Less Deferred Tax Balance			$ (12,937,683)	$ (14,585,925)	$ (16,234,167)	$ (17,882,408)	$ (19,530,650)	$ (21,178,892)	$ (22,827,133)	$ (24,475,375)	$ (26,123,617)	$ (27,771,858)	$ (29,857,126)
Environmental Compliance Rate Base			$ 104,884,290	$ 99,027,055	$ 93,169,820	$ 87,312,585	$ 81,455,351	$ 75,598,116	$ 69,740,881	$ 63,883,646	$ 58,026,411	$ 52,169,177	$ 84,758,916
Rate of Return			10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
Assumed	Tons (1.155)	1,000,000	$ 11,505,807	$ 10,863,268	$ 10,220,729	$ 9,578,191	$ 8,935,652	$ 8,293,113	$ 7,650,575	$ 7,008,036	$ 6,365,497	$ 5,722,959	$ 9,298,053
86.7500%	Cubic yards	867,500											
Operating Expenses			$ 28,573,949	$ 30,288,386	$ 32,105,689	$ 34,032,031	$ 36,073,952	$ 38,238,390	$ 40,532,693	$ 42,964,655	$ 45,542,534	$ 48,275,086	$ 51,171,591
less Gypsum to On-site Landfill			$ (13,362,811)	$ (14,164,579)	$ (15,014,454)	$ (15,915,321)	$ (16,870,241)	$ (17,882,455)	$ (18,955,402)	$ (20,092,727)	$ (21,298,290)	$ (22,576,188)	$ (23,930,759)
Gypsum to Sterling	**$ 9.00**		$ 13,532,672	$ 14,344,633	$ 15,205,311	$ 16,117,629	$ 17,084,687	$ 18,109,768	$ 19,196,354	$ 20,348,136	$ 21,569,024	$ 22,863,165	$ 24,234,955
Net Operating			$ 28,743,811	$ 30,468,439	$ 32,296,546	$ 34,234,338	$ 36,288,399	$ 38,465,703	$ 40,773,645	$ 43,220,064	$ 45,813,267	$ 48,562,063	$ 51,475,787
Annual Depreciation			$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 5,324,993
Annual Property Tax Expense			$ 322,630	$ 367,985	$ 367,985	$ 367,985	$ 367,985	$ 367,985	$ 419,820	$ 458,696	$ 466,510	$ 466,510	$ 466,510
Total OE			$ 33,275,434	$ 35,045,418	$ 36,873,524	$ 38,811,317	$ 40,865,377	$ 43,042,681	$ 45,402,458	$ 47,887,752	$ 50,488,770	$ 53,237,566	$ 57,267,290
Total E(m) Gypsum to Sterling		$ 453,492,164	$ 44,781,241	$ 45,908,686	$ 47,094,253	$ 48,389,508	$ 49,801,029	$ 51,335,794	$ 53,053,032	$ 54,895,788	$ 56,854,267	$ 58,960,525	$ 66,565,343
Total E(m) - Project 30 (See below)		$ 555,782,375	$ 60,594,706	$ 61,145,021	$ 61,752,847	$ 62,469,712	$ 63,302,156	$ 69,590,749	$ 74,557,268	$ 76,324,534	$ 77,376,925	$ 78,576,175	$ 79,939,378
Difference	**PVRR**	**7.81% $ (102,290,212)**	$ (15,813,466)	$ (15,236,335)	$ (14,658,594)	$ (14,080,204)	$ (13,501,127)	$ (18,254,955)	$ (21,504,236)	$ (21,428,746)	$ (20,522,658)	$ (19,615,651)	$ (13,374,035)
Date			12/31/2020	12/31/2021	12/31/2022	12/31/2023	12/31/2024	12/31/2025	12/31/2026	12/31/2027	12/31/2028	12/31/2029	12/31/2030

Revenue Requirments Summary
2009 Amended Plan
Project 30 Ghent Landfill Phase I
See Exhibit B

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
						Start Phase III					
Revenue Requirement	$ 40,000,000					$ 40,000,000	$ 30,000,000	$ 6,030,021			
Eligible Plant	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 323,969,979	$ 353,969,979	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
Less Gypsum Plant	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Revised Eligible Plant	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 323,969,979	$ 353,969,979	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
Less Accumulated Depreciation	$ (48,317,917)	$ (56,240,679)	$ (64,163,440)	$ (72,086,202)	$ (80,008,964)	$ (89,047,726)	$ (98,923,488)	$ (108,967,487)	$ (119,011,486)	$ (129,055,485)	$ (139,099,485)
Less Deferred Tax Balance	$ (18,921,296)	$ (22,023,850)	$ (25,126,403)	$ (28,228,957)	$ (31,331,510)	$ (34,871,089)	$ (38,738,438)	$ (42,671,668)	$ (46,604,898)	$ (50,538,128)	$ (54,471,358)
Environmental Compliance Rate Base	$ 216,730,766	$ 205,705,451	$ 194,680,135	$ 183,654,820	$ 172,629,505	$ 200,051,164	$ 216,308,054	$ 208,360,845	$ 194,383,616	$ 180,406,387	$ 166,429,157
Rate of Return	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
	$ 23,775,365	$ 22,565,888	$ 21,356,411	$ 20,146,934	$ 18,937,457	$ 21,945,613	$ 23,728,993	$ 22,857,185	$ 21,323,883	$ 19,790,581	$ 18,257,279
Operating Expenses	$ 28,573,949.13	$ 30,288,386.07	$ 32,105,689.24	$ 34,032,030.59	$ 36,073,952.43	$ 38,238,389.57	$ 40,532,692.95	$ 42,964,654.53	$ 45,542,533.80	$ 48,275,085.83	$ 51,171,590.97
less Gypsum to On-site Landfill	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Gypsum to Sterling	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Net Operating	$ 28,573,949	$ 30,288,386	$ 32,105,689	$ 34,032,031	$ 36,073,952	$ 38,238,390	$ 40,532,693	$ 42,964,655	$ 45,542,534	$ 48,275,086	$ 51,171,591
Annual Depreciation	$ 7,922,762	$ 7,922,762	$ 7,922,762	$ 7,922,762	$ 7,922,762	$ 9,038,762	$ 9,875,762	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999
Annual Property Tax Expense	$ 322,630	$ 367,985	$ 367,985	$ 367,985	$ 367,985	$ 419,820	$ 458,696	$ 466,510	$ 466,510	$ 466,510	$ 466,510
Total OE	$ 36,819,341	$ 38,579,133	$ 40,396,436	$ 42,322,778	$ 44,364,700	$ 47,645,137	$ 50,828,274	$ 53,467,349	$ 56,053,043	$ 58,785,595	$ 61,682,100
Total E(m) Gypsum to On-site Landfill as Calculated	$ 60,594,706	$ 61,145,021	$ 61,752,847	$ 62,469,712	$ 63,302,156	$ 69,590,749	$ 74,557,268	$ 76,324,534	$ 77,376,925	$ 78,576,175	$ 79,939,378
Total E(m) Gypsum to On-site Landfill per KU											
Calculation Check Difference											
Site E/F Hauling cost of Ash 2.25 mile round trip	$ 4,244,332	$ 4,498,992	$ 4,768,931	$ 5,055,067	$ 5,358,371	$ 5,679,873	$ 6,020,666	$ 6,381,906	$ 6,764,820	$ 7,170,709	$ 7,600,952
Haul Road Maintenance	$ 80,488	$ 85,317	$ 90,436	$ 95,862	$ 101,614	$ 107,711	$ 114,174	$ 121,024	$ 128,285	$ 135,982	$ 144,141
Total	$ 4,324,820	$ 4,584,309	$ 4,859,367	$ 5,150,929	$ 5,459,985	$ 5,787,584	$ 6,134,839	$ 6,502,930	$ 6,893,105	$ 7,306,692	$ 7,745,093
Reduce by 50% for Site M	$ 2,162,410	$ 2,292,154	$ 2,429,684	$ 2,575,465	$ 2,729,993	$ 2,893,792	$ 3,067,420	$ 3,251,465	$ 3,446,553	$ 3,653,346	$ 3,872,547
Difference	**PVRR**	**7.81% $ (21,865,903)**									

Revenue Requirments Summary
Gypsum Disposal at Sterling Materials

			2031	2032	2033	2034	2035	2036	2037	
Revenue Requirement			$ 40,000,000							
Eligible Plant			$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	
Less Gypsum Plant			$ (129,140,021)	$ (129,140,021)	$ (129,140,021)	$ (129,140,021)	$ (129,140,021)	$ (129,140,021)	$ (129,140,021)	
Revised Eligible Plant			$ 230,859,979	$ 230,859,979	$ 230,859,979	$ 230,859,979	$ 230,859,979	$ 230,859,979	$ 230,859,979	
Less Accumulated Depreciation			$ (82,684,930)	$ (89,125,923)	$ (95,566,916)	$ (102,007,909)	$ (108,448,902)	$ (114,889,895)	$ (121,330,888)	
Less Deferred Tax Balance			$ (32,379,419)	$ (34,901,711)	$ (37,424,004)	$ (39,946,297)	$ (42,468,590)	$ (44,990,883)	$ (47,513,176)	
Environmental Compliance Rate Base			$ 115,795,631	$ 106,832,345	$ 97,869,059	$ 88,905,773	$ 79,942,487	$ 70,979,202	$ 62,015,916	
Rate of Return			10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	
Assumed	Tons (1.155)	1,000,000	$ 12,702,781	$ 11,719,508	$ 10,736,236	$ 9,752,963	$ 8,769,691	$ 7,786,418	$ 6,803,146	
86.7500%	Cubic yards	867,500								
Operating Expenses			$ 54,241,886	$ 57,496,400	$ 60,946,184	$ 64,602,955	$ 68,479,132	$ 72,587,880	$ 76,943,153	
less Gypsum to On-site Landfill			$ (25,366,604)	$ (26,888,601)	$ (28,501,917)	$ (30,212,032)	$ (32,024,754)	$ (33,946,239)	$ (35,983,013)	
Gypsum to Sterling		**$ 9.00**	$ 25,689,052	$ 27,230,396	$ 28,864,219	$ 30,596,072	$ 32,431,837	$ 34,377,747	$ 36,440,412	
Net Operating			$ 54,564,334	$ 57,838,194	$ 61,308,486	$ 64,986,995	$ 68,886,215	$ 73,019,388	$ 77,400,551	
Annual Depreciation			$ 6,440,993	$ 6,440,993	$ 6,440,993	$ 6,440,993	$ 6,440,993	$ 6,440,993	$ 6,440,993	
Annual Property Tax Expense			$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	
Total OE			$ 61,471,837	$ 64,745,697	$ 68,215,989	$ 71,894,498	$ 75,793,718	$ 79,926,890	$ 84,308,054	
Total E(m) Gypsum to Sterling		$ 453,492,164	$ 74,174,618	$ 76,465,205	$ 78,952,224	$ 81,647,461	$ 84,563,408	$ 87,713,309	$ 91,111,200	$ 1,465,701,254
Total E(m) - Project 30 (See below)		$ 555,782,375	$ 81,476,372	$ 83,197,583	$ 85,114,065	$ 87,237,534	$ 89,580,409	$ 92,155,855	$ 94,977,826	$ 1,754,455,070
Difference	**PVRR**	**7.81% $ (102,290,212)**	$ (7,301,754)	$ (6,732,378)	$ (6,161,840)	$ (5,590,073)	$ (5,017,001)	$ (4,442,546)	$ (3,866,626)	$ (288,753,816)
Date			12/31/2031	12/31/2032	12/31/2033	12/31/2034	12/31/2035	12/31/2036	12/31/2037	
										$ (288,753,816)

Revenue Requirments Summary
2009 Amended Plan
Project 30 Ghent Landfill Phase I
See Exhibit B

			2031	2032	2033	2034	2035	2036	2037
Revenue Requirement									
Eligible Plant			$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
Less Gypsum Plant			$ -	$ -	$ -	$ -	$ -	$ -	$ -
Revised Eligible Plant			$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
Less Accumulated Depreciation			$ (149,143,484)	$ (159,187,483)	$ (169,231,482)	$ (179,275,482)	$ (189,319,481)	$ (199,363,480)	$ (209,407,479)
Less Deferred Tax Balance			$ (58,404,588)	$ (62,337,818)	$ (66,271,048)	$ (70,204,279)	$ (74,137,509)	$ (78,070,739)	$ (82,003,969)
Environmental Compliance Rate Base			$ 152,451,928	$ 138,474,699	$ 124,497,469	$ 110,520,240	$ 96,543,010	$ 82,565,781	$ 68,588,552
Rate of Return			10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
			$ 16,723,976	$ 15,190,674	$ 13,657,372	$ 12,124,070	$ 10,590,768	$ 9,057,466	$ 7,524,164
Operating Expenses			$ 54,241,886.43	$ 57,496,399.62	$ 60,946,183.60	$ 64,602,954.61	$ 68,479,131.89	$ 72,587,879.80	$ 76,943,152.59
less Gypsum to On-site Landfill			$ -	$ -	$ -	$ -	$ -	$ -	$ -
Gypsum to Sterling			$ -	$ -	$ -	$ -	$ -	$ -	$ -
Net Operating			$ 54,241,886	$ 57,496,400	$ 60,946,184	$ 64,602,955	$ 68,479,132	$ 72,587,880	$ 76,943,153
Annual Depreciation			$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999
Annual Property Tax Expense			$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510
Total OE			$ 64,752,395	$ 68,006,908	$ 71,456,692	$ 75,113,463	$ 78,989,641	$ 83,098,389	$ 87,453,661
Total E(m) Gypsum to On-site Landfill as Calculated			$ 81,476,372	$ 83,197,583	$ 85,114,065	$ 87,237,534	$ 89,580,409	$ 92,155,855	$ 94,977,826
Total E(m) Gypsum to On-site Landfill per KU									
Calculation Check Difference									
Site E/F	Hauling cost of Ash 2.25 mile round trip		$ 8,057,009	$ 8,540,429	$ 9,052,855	$ 9,596,026	$ 10,171,788	$ 10,782,095	$ 11,429,021
	Haul Road Maintenance		$ 152,790	$ 161,957	$ 171,675	$ 181,975	$ 192,894	$ 204,467	$ 216,735
Total			$ 8,209,799	$ 8,702,387	$ 9,224,530	$ 9,778,002	$ 10,364,682	$ 10,986,563	$ 11,645,756
Reduce by 50% for Site M			$ 4,104,899	$ 4,351,193	$ 4,612,265	$ 4,889,001	$ 5,182,341	$ 5,493,281	$ 5,822,878
Difference	**PVRR**	**7.81% $ (21,865,903)**							

EXHIBIT H

From: Schram, Chuck(/O=LGE/OU=LOUISVILLE/CN=RECIPIENTS/CN=SCHRAMC)
To: Wilson, Stuart
CC:
BCC:
Subject: FW: Ghent Landfill Beneficial Reuse
Sent: 12/14/2011 11:56:11 AM -0500 (EST)
Attachments:

Fyi...

From: Straight, Scott
Sent: Wednesday, December 14, 2011 11:38 AM
To: 'John Walters'; Pfeiffer, Caryl; Voyles, John; Schram, Chuck; Joyce, Jeff; Heun, Jeff; Bowling, Ralph; Sturgeon, Allyson
Subject: RE: Ghent Landfill Beneficial Reuse

Mr. Walters,

You misunderstood my comment. My comment meant that it could defer the next phase of the landfill in a few years.

Scott Straight
Director, Project Engineering
LG&E and KU Energy, LLC
(502) 627-2701
scott.straight@lge-ku.com

From: John Walters [mailto:johnwalters@sterlingventures.com]
Sent: Wednesday, December 14, 2011 11:20 AM
To: Straight, Scott; Pfeiffer, Caryl; Voyles, John; Schram, Chuck; Joyce, Jeff; Heun, Jeff; Bowling, Ralph; Sturgeon, Allyson
Subject: Ghent Landfill Beneficial Reuse

Scott

Thank you for the reply. I must admit that I am a little confused by your response, particularly that the project "could have merit in a few years to defer the next phased expansion of the landfill".

In his testimony before the PSC in connection with the approval of the Ghent landfill, Lonnie Bellar stated, *"If the Companies are able to take advantage of beneficial reuse opportunities **when they arise**, they can reduce the rate of CCP material going into on-site storage facilities, thereby extending the life of their CCP storage facilities. The Companies are therefore actively seeking such alternative to reduce the volume of on-site that is required to continue operating their generating facilities."*

The opportunity to use Sterling's Beneficial Reuse Permit has arisen. (In fact, it is has been available for over a year.) It is an immediate beneficial reuse opportunity, not a potential future opportunity. It is a current opportunity that is a lower PVRR cost alternative, and will extend the life of the new landfill. Delaying a fully PVRR review and analysis for 5 to 6 years seems to be completely contrary to KU's commitment to the PSC on the procedures that would be followed in making an unbiased decision on whether to spend capital, or to take advantage of a beneficial reuse opportunity.

> All beneficial reuse opportunities will be screened, discussed, evaluated and documented (in conjunction with the current plan) **when their availability first becomes known**- not solely when a need for additional storage capacity has been identified as the evaluation of each prudent reuse opportunity could provide a delay of the next

phase of construction.

….

While many factors impact decisions on how to proceed (such as safety, ability to acquire needed permit(s), etc.) **present value of revenue requirements is used as the primary economic decision metric**. In some instances, additional cost metrics (such as cost per cubic yard or cost per ton) may also be quantified. Documentation for the evaluation is typically produced in close proximity to completing the evaluation. Often the supporting documentation is the source from which many internal and **external presentations or business cases discussing the issue are developed**. As previously stated, documentation regarding the alternatives is typically developed in coordination with consultants, however, the economic evaluation and associated documentation summarizing the economic evaluation is developed within E.ON U.S. At each decision point (such as formulation of alternatives, evaluation of options, development of documentation), **oversight is built into the process to serve as a check**. The function of this validation step is to subject the alternatives, evaluation or documentation to extensive "what ifs" and to confirm that a better alternative or solution does not possibly exist. For example, is it possible that more favorable economics could not be achieved by selecting an alternative site or location? (*Comprehensive Strategy for Management of Coal Combustion Byproducts, June 2009*)

Mr. Bellar also stated in his testimony before the PSC that: *"The rate treatment of CCP storage facilities projects and the beneficial reuse opportunities should be consistent to avoid any economic bias toward one project type. When economic evaluation of CCP projects is consistent, including both capital investment and beneficial reuse, customers will ultimately benefit through the lowest combination of long-term CCP management options."*

What Sterling Ventures has proposed is that Phase 2 of the Ghent Landfill project can be delayed by eleven years, and that phase 3 of the landfill can be eliminated entirely, by diverting all gypsum using Sterling's Beneficial Reuse Permit starting when the new landfill opens. If Ghent only places ash, not gypsum, in its new landfill **from the beginning**, its life is significantly and materially extended. If you do not take advantage of Sterling's Beneficial Reuse Permit when the landfill first opens, but instead delay using the opportunity until you begin construction of phase two, KU will then be forced to build phase 2 earlier than necessary, and will most certainly be required to build phase 3.

In addition, planning now to take advantage of Sterling's permit allows KU to delay the purchase of rolling stock and equipment that would be necessary to place gypsum in the new landfill. However, as the attached PVRR analysis sheet shows, **even if** Ghent spends all of the cost to purchase and install the gypsum dewatering system and other gypsum related capital cost, it is still significantly less expensive to take advantage of Sterling's Beneficial Reuse Permit beginning in 2013 than it would be to dispose of gypsum in Ghent's landfill ($31,600,000 in PVRR savings). However, installing all of the gypsum handling equipment would seem excessive, especially given that Ghent's gypsum stacking pond could be used in the interim if installation of the gypsum handling equipment is required in the future.

We have also presented the option of purchasing hi-calcium scrubber limestone from our mine at approximately the same cost as Ghent is currently paying for its' limestone, and backhauling the limestone to Ghent, thereby further reducing the CCP disposal cost. This is potentially another $23,000,000 in PVRR saving to KU's customers. According to documents filed with the PSC, the existing contract with Mulzer Crushed Stone for Ghent's scrubber stone is a 9 year contract ending at the end of 2014, with an opt out pricing negotiating provision in 2012.

The purpose of Sterling providing the PVRR analysis comparing Project 30, with and without the beneficial reuse opportunity, was to approximate, as close as possible, the procedure that KU committed to the PSC that it would follow when presented with a current beneficial reuse opportunity with respect to the new landfills. We expected, given KU's pledge to the PSC, and the significant PVRR saving opportunities presented, that we would be able to sit down with KU to fully discuss our permit, options, limestone alternatives, costs, risks, price, contract terms and other facets of the beneficial reuse opportunity Sterling presented.

We would again respectfully request that KU take the time to meet with us now, not in 5 or 6 years, to completely analyze this beneficial reuse opportunity using the procedures, with appropriate unbiased oversight, that KU committed to the PSC would be followed.

John Walters

--

John W. Walters, Jr.

Sterling Ventures, LLC

376 South Broadway

Lexington, KY 40508

Phone (859) 259-9600

Fax (859) 259-9601

johnwalters@sterlingventures.com

_____

Straight, Scott Scott.Straight@lge-ku.com Dec 13 (1 day ago)
to me, Caryl, John, charles.schram, Jeff, Jeff, Ralph

Mr. Walters,

As we have discussed over the phone, this potential opportunity you have presented would not eliminate the need to construct the infrastructure required to process the by-products at Ghent, nor would it eliminate the construction of the landfill infrastructure. Instead, it potentially could have merit in a few years to defer the next phased expansion of the landfill.

The next phase of the landfill is years away; therefore, I'm transferring any future evaluation of this proposal to Mr. Jeff Joyce, Ghent's General Manager.

As the station General Manager, Mr. Joyce will take the lead on any consideration of changes to the future operation of that facility. If needed, Mr. Joyce will request involvement from my department or Caryl Pfeiffer's Corporate Fuels and By-Products department.

Sincerely,

Scott Straight
Director, Project Engineering
LG&E and KU Energy, LLC
(502) 627-2701
scott.straight@lge-ku.com

From: Wilson, Stuart(/O=LGE/OU=LOUISVILLE/CN=RECIPIENTS/CN=WILSONST)
To: Schram, Chuck
CC: Farhat, Monica
BCC:
Subject: Sterling Ventures Analysis
Sent: 02/28/2012 05:12:10 PM -0500 (EST)
Attachments: 20120220_SterlingVenturesAnalysis_Ghent_CCR.xlsx - 263 KB;

Chuck,

I've attached a workbook that contains our Sterling Ventures analysis. To facilitate your review, I'd recommend stepping through one of the revenue requirements worksheets (the 'landfill only' worksheet is in blue, the 'landfill + sterling' worksheet is in red, and the 'landfill + sterling + limestone' worksheet is in yellow). Everything for each case except the derivation of the capital revenue requirements is contained in these worksheets. The 'ResultsSummary' worksheet contains a summary of each case. There are two things related to this analysis I'd like to follow up on…

1. We're assuming that Sterling is willing to sell limestone for $6.50/ton and transport gypsum for $10.95/ton. The proposal you sent (on 1/20 at 4:43 PM) references $7.00/ton and $10.50/ton for these services, respectively. There are a couple different sources of data it seems. Neither assumption affects our recommendation, but I'd like to make sure we're using the best source.
2. I'm confident we're modeling everything in a way that is entirely consistent with our discussion with Jeff Heun. Still, I'd like to carefully document what we're doing to compute tons of gypsum transported (starting with tons of coal burned at the station) and get Jeff to sign off on it (once and for all).

Please let me know if you have any questions.

Stuart

From: Farhat, Monica(/O=LGE/OU=LOUISVILLE/CN=RECIPIENTS/CN=E026288)
To: Schram, Chuck; Wilson, Stuart
CC:
BCC:
Subject: RE: Scrubber Stone RFQ
Sent: 03/26/2013 03:37:54 PM -0400 (EDT)
Attachments: 20120224_SterlingVenturesProposal_Ghent_2012ECR.docx;

In late 2011, Sterling proposed the following:

- $10.95/ton to haul and store gypsum
- $6.5/ton to supply limestone

Our analysis considered the proposal's impact to the station's CCP storage and limestone costs and ultimately concluded that the proposal was more costly than storing CCPs on-site and sourcing limestone from another supplier. We determined that Sterling's cost to transport gypsum would have to decrease from $10.95/ton to $8.75/ton to break-even with the Company's current plans for CCP storage and limestone supply (see attached for more details).

In the new proposal, Sterling has decreased the gypsum hauling cost and increased their limestone cost. It appears that their limestone cost is slightly more expensive than the other bidders ($9.80/ton versus $9.50/ton). Since their gypsum hauling cost of $6.75/ton is less than the break-even cost that was previously determined, it's not obvious to us that we shouldn't consider this proposal more carefully.

Thanks,
Monica

From: Wilson, Stuart
Sent: Tuesday, March 26, 2013 11:35 AM
To: Farhat, Monica
Subject: FW: Scrubber Stone RFQ

Email from Carol…

From: Schram, Chuck
Sent: Tuesday, March 26, 2013 11:24 AM
To: Wilson, Stuart
Subject: FW: Scrubber Stone RFQ

fyi

From: Pfeiffer, Caryl
Sent: Monday, March 25, 2013 2:40 PM
To: Schram, Chuck
Subject: FW: Scrubber Stone RFQ

Walters/Sterling responded to our recent scrubber stone solicitation with the following proposal:
Limestone delivered into Ghent and Trimble County with the haul-back of gypsum (Ghent gypsum to the Sterling quarry and Trimble County gypsum to the Ghent landfill). All truck delivery (they estimate 20 hours/day). No bid for Mill Creek. No bid of limestone alone to any plant or combination of plants. They say they need to have a contract in place by June 30th.

Ghent: $9.80/ton of stone plus $6.75/ton for gypsum haul-back
Trimble County: $9.58/ton of stone plus $6.00/ton for gypsum haul-back

Our low bidders are proposing $7.00/ton of stone plus $2.50/ton barging cost (to Crounse) for delivery into Mill Creek, Trimble County and Ghent (if we carve out any plant(s) from their proposals, then they have the ability to come back and raise their price as part of their bid responses).

Thus, Sterling is not competitive on the stone to begin with and not only would we have to make modifications at each of the plants to accept delivery of stone by truck, but also we would have to pay for the haul-back of gypsum. I feel comfortable telling them they are not the low bidder, but I would like to repeat some of the verbiage we used earlier to tell them why they were not a viable disposal alternative for gypsum.

From: John Walters [mailto:johnwalters@sterlingventures.com]
Sent: Tuesday, March 19, 2013 11:07 AM
To: Gilbert, Bill G.; Pfeiffer, Caryl; Alex Boone; Dotson, Mike
Subject: Scrubber Stone RFQ

Bill
Could you give me an update on the normalization process in connection with the January 22, 2013 RFQ for scrubber limestone at Mill Creek, Trimble County and Ghent? I know that because our bid includes gypsum disposal, including the cost saving from delaying the construction of Phases 2 and 3 of the Ghent Landfill, and the most cost effective means of dealing with Trimble County CCPs, complicates the normalization process.
In addition, I assume there are cost consideration, both increases and decreases, from delivering limestone by truck verses barge. Several years ago, we began discussions with plant personnel at Ghent about the efficiencies of dedicating Ghent's barge load-out equipment to coal only, and building a hopper and conveyor on site to convey stone delivered by truck directly into your limestone inventory pile. We would be more than happy to meet with you and/or Ghent and Trimble County operations personnel to answer questions or discuss issues or concerns about truck delivery of limestone.
Again, we appreciate the opportunity to work with you both as a limestone source, and to develop options to lower the overall cost to you and your customers of land-filling CCPs.
John

John W. Walters, Jr.
Sterling Ventures, LLC
376 South Broadway
Lexington, KY 40508
Phone (859) 259-9600
Fax (859) 259-9601

johnwalters@sterlingventures.com

Ghent Station: Analysis of Off-Site Gypsum Storage Proposal

PPL companies

Generation Planning & Analysis
February 24, 2012

1 Background

In the June 2009 ECR filing, several alternatives were considered for storing coal combustion residuals (CCR) at the Ghent Station over the next 25 years. The least-cost alternative included (a) the construction of an on-site landfill to store ash and gypsum and (b) a short-term agreement with Trans Ash to move CCR offsite until new landfill capacity became available in 2013. After the ECR filing, the EPA issued new CCR rules and Trans Ash's storage facility was no longer considered to be an approved structural fill. In 2010, after updating its forecast of CCR production, the Company learned that the short-term need for off-site ash storage had been eliminated and that the short-term need for offsite gypsum storage had been reduced to 0.1 million cubic yards (MCY). Sterling Ventures (Sterling) was identified as a potential alternative for storing the gypsum but no agreement was ultimately reached. Based on the Company's most recent CCR production forecast, the short-term need for offsite gypsum storage no longer exists. In late 2011, Sterling Ventures submitted a new proposal for storing gypsum.

2 Sterling Proposal

Sterling has proposed to store all gypsum from the Ghent Station (net of sales to CertainTeed) in its offsite storage facility for $10.95/ton. Per the proposal, Sterling will excavate, load, and haul gypsum from the existing gypsum stack at the Ghent station. In doing this, Sterling claims that the Company can defer the need for subsequent landfill phases and avoid approximately $53 million in capital costs for a dry gypsum handling system, gypsum fines project, and gypsum dewatering facility. In addition, by eliminating the need to store gypsum altogether, Sterling claims that Company can realize further capital savings by reverting to a CCR storage alternative from the 2009 ECR filing that included a smaller landfill located closer to the Ghent station. Finally, in addition to its proposal for storing gypsum, Sterling has proposed to backhaul high calcium limestone to the Ghent station for $6.50/ton. See Attachment 1 for the Sterling Ventures proposal.

3 Analysis of Sterling Proposal

The Company considered the Sterling proposal as an alternative to its current plan. Due to the costs and risks associated with operating a gypsum stack, the Company plans to retire the gypsum stack when the new landfill is in service. Therefore, contrary to Sterling's claims, Sterling will not be able to take gypsum from the existing gypsum stack and the Company will not be able to avoid the capital costs for the dry gypsum handling system, gypsum fines project, and gypsum dewatering facility. In addition, selecting a different landfill alternative at the Ghent station is not a viable option because this would require new environmental permits and delay the project by two years.

Table 1 contains a summary of the assumptions used in this analysis. The Sterling proposal defers the need for Phase II of the currently proposed landfill and eliminates the need for Phase III of the landfill altogether. Because gypsum comprises 60% of all CCR, Phases I and II of the landfill with the Sterling proposal have seven more years of landfill capacity than all phases of the landfill without the Sterling proposal. With the Sterling proposal, gypsum is dewatered at the station and transported by Sterling to

an offsite storage facility for $10.95/ton. With the Company's current plan, gypsum with the same moisture content is delivered to the landfill for $4.43/ton.

Table 1 – Summary of Assumptions ($2013)

	Landfill Only	Landfill w/ Sterling Ventures Proposal
In-Service Year/Capacity of Phase I	2013 / 14.3 MCY	2013 / 14.3 MCY
In-Service Year/Capacity of Phase II	2022 / 14.5 MCY	2028 /14.5 MCY
In-Service Year/Capacity of Phase III	2031 / 23.0 MCY	N/A
Landfill End of Service Year	2046	2053
Dewatering Cost (all CCR)	$112,200 per month	$112,200 per month
Sterling Transport and Storage Cost	N/A	$10.95/wet ton
Cost to Place CCR in Landfill	$4.43/wet ton	$4.43/wet ton

The results of this analysis are summarized in Table 2. The levelized cost per cubic yard of CCR placed (either in the landfill or transported to an offsite storage facility) is lower in the Company's current plan; the savings in the Sterling proposal associated with deferring or eliminating the need for landfill phases are more than offset by the higher variable costs of transporting gypsum to an offsite storage facility.

Table 2 – Analysis Results

	Landfill Only	Landfill w/ Sterling Ventures Proposal
Net Present Value Revenue Requirements (NPVRR, $Millions)		
Capital	348	297
O&M	169	313
Total	517	610
Levelized NPVRR/CY (Dollars)	$24.51	$27.63

Sterling's cost to transport and store gypsum is $10.95/wet ton. This cost must decrease to $7.50/wet ton to break even with the Company's current proposal.

Concerning the option to purchase limestone from Sterling, Ghent's current cost of limestone is higher than $6.50/ton. If the savings in limestone costs are credited to the Sterling proposal, the Sterling proposal compares more favorably to the Company's current proposal, but the Company's current proposal is still least-cost. With the limestone option, Sterling's 'break-even' cost increases from $7.50/wet ton to $8.75/wet ton.

From: Schram, Chuck(/O=LGE/OU=LOUISVILLE/CN=RECIPIENTS/CN=SCHRAMC)
To: Wilson, Stuart
CC:
BCC:
Subject: RE: Sterling Ventures Analysis
Sent: 02/28/2012 05:26:27 PM -0500 (EST)
Attachments:

Thanks...Let me look thru it.

From: Wilson, Stuart
Sent: Tuesday, February 28, 2012 5:12 PM
To: Schram, Chuck
Cc: Farhat, Monica
Subject: Sterling Ventures Analysis

Chuck,

I've attached a workbook that contains our Sterling Ventures analysis. To facilitate your review, I'd recommend stepping through one of the revenue requirements worksheets (the 'landfill only' worksheet is in blue, the 'landfill + sterling' worksheet is in red, and the 'landfill + sterling + limestone' worksheet is in yellow). Everything for each case except the derivation of the capital revenue requirements is contained in these worksheets. The 'ResultsSummary' worksheet contains a summary of each case. There are two things related to this analysis I'd like to follow up on...

1. We're assuming that Sterling is willing to sell limestone for $6.50/ton and transport gypsum for $10.95/ton. The proposal you sent (on 1/20 at 4:43 PM) references $7.00/ton and $10.50/ton for these services, respectively. There are a couple different sources of data it seems. Neither assumption affects our recommendation, but I'd like to make sure we're using the best source.

2. I'm confident we're modeling everything in a way that is entirely consistent with our discussion with Jeff Heun. Still, I'd like to carefully document what we're doing to compute tons of gypsum transported (starting with tons of coal burned at the station) and get Jeff to sign off on it (once and for all).

Please let me know if you have any questions.

Stuart

<< File: 20120220_SterlingVenturesAnalysis_Ghent_CCR.xlsx >>

From: Pfeiffer, Caryl(/O=LGE/OU=LOUISVILLE/CN=RECIPIENTS/CN=E012383)
To: Billiter, Delbert
CC:
BCC:
Subject: FW: Ghent Gyspum Disposal
Sent: 09/19/2011 10:50:35 AM -0400 (EDT)
Attachments: LGE - KU Sterling Materials.pdf;

FYI

From: John Walters [mailto:johnwalters@sterlingventures.com]
Sent: Tuesday, September 13, 2011 5:15 PM
To: Smith, Timothy; Joyce, Jeff; Pfeiffer, Caryl; Tapp Sr., Kenny (Electric); Gilbert, Bill G.; Dotson, Mike; Puckett, Paul
Cc: Alex Boone
Subject: Ghent Gyspum Disposal

Please see attached

John W. Walters, Jr.
Sterling Ventures, LLC
376 South Broadway
Lexington, KY 40508
Phone (859) 259-9600
Cell 859-621-3990
Fax (859) 259-9601
johnwalters@sterlingventures.com

STERLING
VENTURES

September 13, 2011

Mr. Jeff Joyce
Mr. Timothy Smith
LG&E and KU-Ghent Station
9485 HWY 42 East
Ghent, KY 41045

Ms. Caryl Pfeiffer VIA E-mail
Mr. Kenny Tapp
Mr. Mike Dotson
Mr. Bill Gilbert
Mr. Paul Puckett
LG&E and KU
220 West Main Street
P.O. Box 32010
Louisville, KY 40202

Re: FGD Gypsum Disposal - Ghent Generating Station

Dear Ms. Pfeiffer and Gentlemen:

We have recently met with Tim Smith at Ghent Station to renew discussions concerning the possibility of Sterling Materials disposing of excess FGD Gypsum from the gypsum stacking facility at the Ghent Generating Station. We were unable to reach an agreement last year on gypsum disposal, presumably based on our proposed pricing.

Our pricing was in part based upon a requirement for a minimum tonnage of gypsum in order to cover the cost of Sterling having to install a gypsum access shaft to access our underground mine. The gypsum access shaft is preferable to trucking the gypsum underground, which we considered cost prohibitive. We proposed to Tim that if Ghent was interested in paying for the cost of the gypsum access shaft (which we estimated to be approximately $650,000) we would be willing to enter into an agreement that would give Ghent the right to dispose of its stacking pond gypsum in Sterling's mine. LGE/KU would be responsible for all loading and trucking fees. Sterling's charge in this scenario would be $5.50 per ton, subject to the terms of a final agreement. The $5.50 would be reduced by $1.00 for a period of 18 months in order to encourage early gypsum disposal, and allow you to recoup the cost of the gypsum access shaft.

As we discussed last year, Sterling is interested in not only handling the initial 1,500,000 tons of gypsum from the stacking facility, but also in receiving 100% of Ghent's excess FGD

gypsum for the life of the power plant. Attached is a comparative analysis of the PVRR cost difference between your current plan of placing all CCP's in a new landfill, and placing all gypsum at Sterling, with only ash going into your new landfill. The attached comparative analysis is based upon the capital construction cost and O&M cost you provided to the Kentucky Public Service Commission. Our attached analysis indicates that disposal of gypsum at Sterling could be the least cost PVRR alternative by at least $79,000,000, and possibly over $100,000,000 if scrubber limestone is purchased from Sterling and backhauled to the plant.

Obviously, we have necessarily made some assumptions in the attached comparative analysis, and we would like to meet with you again to discuss our analysis and assumptions, and to answer any questions you may have. We believe there are significant savings to you and your customers as reflected in the attached.

In addition, as we have previously discussed, we also have an underground limestone mine in Jessamine County near E.W. Brown. We met last week with Ron Gruzesky at The Kentucky Division of Solid Waste, and, based on that meeting, are planning to submit an application to permit our Jessamine County mine as a special waste landfill to receive all CCPs. Hopefully, there is the possibility of significant savings to you at Brown as well.

When you have a chance, give me or John Walters a call and we can discuss the above, and plan and how to move forward.

Sincerely,

Samuel A.B. Boone

GHENT STATION ALTERNATIVE FOR CCP/GYPSUM DISPOSAL

Background

Sterling Materials is an active underground limestone mine located in Verona, Kentucky, approximately 20 miles from Kentucky Utilities Company's Ghent Station. Sterling currently mines between 1,000,000 and 1,600,000 tons of limestone per year, and has been in operation since 2000.

In addition to producing limestone for the general aggregate construction market, Sterling also mines high calcium limestone for Mississippi Lime Company for use in Mississippi Lime's kiln located on Sterling's property. This high calcium limestone is also suitable for use as scrubber stone in Ghent's limestone FGD scrubber system.

In November 2010, Sterling obtained a Special Waste Permit from the Kentucky Department of Environmental Protection, Division of Waste Management allowing disposal of FGD gypsum in Sterling's mine.

KU has proposed building a new landfill at Ghent in three phases for an estimated total cost of $360,000,000 to handle the plant's three coal combustion by-products ("CCPs") through 2037[1]. KU forecasted the following wet storage CCP production volumes for Ghent Station (Cubic Yards):

Year	Fly Ash	Bottom Ash	Gypsum
2009	540,000	140,000	880,000
2010	550,000	150,000	1,090,000
2011	580,000	150,000	1,120,000
2012	550,000	150,000	1,060,000
2013	550,000	150,000	1,090,000

Source: Coal Combustion Byproduct Plan for Ghent Station dated June 2009 (the "Ghent CCP Plan" attached as Exhibit A)

Ghent's FGD gypsum is currently placed in a wet gypsum stacking pond. Ghent also has a contract to supply CertainTeed, Inc. with gypsum, and KU has estimated that CertainTeed will purchase approximately 222,000 cubic yards per year of gypsum from Ghent. As a result, Ghent will be required to continue diverting a portion of its gypsum production to the gypsum stacking pond.

The Ghent CCP Plan outlines KU's comparative analysis of the various alternatives to reach the least cost PVRR of disposing of Ghent's CCPs. One of the alternatives considered was off-site disposal at Valley View Landfill near Sulfer, Kentucky, approximately 25 miles from Ghent Station.[2] Disposal at Valley View was however dismissed because of the high cost of loading, hauling and landfill tipping fees.[3] Although, KU has redacted from public view the cost associated with the Valley View disposal alternative, based on

[1] Phase I cost thru 2018 of $203,969,979 as set forth in Revenue Requirement Summary for Project 30 – Ghent Landfill Phase I attached as Exhibit B. Total project capital cost estimated to be $360,000,000 per direct testimony of John Voyles before the Kentucky Public Service Commission in Case No. 2009-00197 attached as Exhibit C.
[2] Ghent CCP Plan, footnote 14, page 10.
[3] Supra at page 19.

other information contained in information provided to the KY PSC, it is estimated that the projected cost for disposal at Valley View in 2009 was approximately $29.65 per ton.[4]

Alternative Proposal for Gypsum Disposal at Sterling Materials' Mine

Sterling Materials is proposing that Ghent send all of its gypsum production (net of sales CertainTeed) to Sterling mine for disposal, with Ghent's ash being disposed of in either the new landfill as proposed on Site E/F, or in a new landfill located at Site M as considered by Case 14/28 in the Ghent CCP Plan (See page 18-19). Sterling estimates that the PVRR cost of this alternative is at least $79,000,000 less than KU's proposal for a new landfill at Site E/F, as set forth in Exhibit D.

Assumptions in Exhibit D analysis

1. Total price for loading, hauling and fees to Sterling Materials of $10.95 in 2013.
2. Net CCP production of approximately 868,000 cubic yards (1,090,000 – 222,000 to CertainTeed).
3. Cubic yards to ton conversion factor – cy x 1.155 (based on Trans Ash conversion assumption of 1.3 MCY equals 1.5 million tons as hauled - see page 10 of Ghent CCP Plan).
4. Reduce Phase I construction cost by $53,110,000[5] by continuing to place gypsum temporarily in existing gypsum stacking pond until shipment to Sterling.
   - Dry Gypsum Handling System $36,800,000
   - Gypsum Fines Project $12,600,000
   - Gypsum Dewatering Facility Earthwork $ 3,710,000
5. Phase III landfill construction cost eliminated. Phase II construction delayed from 2018 to 2030.
   - Phase I capacity – 14.7 MCY (See Ghent CCP Plan page 12)
   - Ash Production – 700,000 MCY (See Ghent CCP Plan page 7)
   - Phase I life until full – 21 years
6. Total Phase II and III construction costs - $156,030,021 (see Footnote 1)
   - Phase II construction cost - $80,000,000
   - Phase III construction cost - $76,030,021
7. Eliminate following Ghent Landfill Operating Expenses (See Ghent Landfill Operating Expenses - Phase I attached as Exhibit F)
   - Dry Gypsum Handling System
   - Hauling Gypsum to Landfill
     - Loading
     - Phase I-2.25 mile round trip
     - Landfilling Gypsum
8. Continue 2018 Annual Depreciation Rate of 2.7899% on Eligible Capital through 2037
9. Continue 2018 Property Tax Expense Rate of .1259% on Eligible Capital through 2037
10. Apply KU O&M Escalation Rate of 6% (See Ghent CCP Plan page 22)

[4] Total beneficial reuse cost of approximately $8,900,000 for 1,500,000 tons of Gypsum to Trans Ash, Inc. equals $5.93/ton (See Comprehensive Strategy for Management of Coal Combustion Byproducts – June 2009), which is almost 80% less than per unit volume basis than disposal at Valley View. (Ghent CCP Plan at pages 18 and 20).
[5] See Ghent Landfill Capital Expenditures Phase I attached as Exhibit E.

Purchase of Scrubber Stone from Sterling

Sterling Materials mines a high calcium seam of limestone in its 2nd and 3rd levels that will meet, and possibly exceed, Ghent's calcium specifications for scrubber stone. Based on general industry knowledge, without verification, it is believed that Ghent's current cost of scrubber stone FOB plant is approximately $8.00.

The proposed price of 10.50 for gypsum disposal at Sterling includes $4.50 per ton for transportation, based upon an assumed round trip turn of 1.5 hours, and $75.00 per hour to haul 25 tons.

Sterling is proposing to sell high calcium limestone to Ghent for $6.50 per ton and backhauling the stone to Ghent. If a $1.50 per ton trucking fee is assigned to the transportation of the limestone, Ghent will incur no additional cost for it scrubber stone. However, reducing the transportation component of the gypsum disposal cost by $1.50 reduces the proposed disposal cost from $10.50 to $9.00 per ton, and correspondingly increases the PVRR saving advantage from approximately $79,000,000 to over $100,000,000. (See Exhibit G).

Construct Ash Storage Pond at Site M

Although KU has redacted from public view information provided to the Kentucky PSC on the cost associated with an ash landfill on Site M, it would generally appear that using Site M as an ash landfill verses Site E/F would substantially reduce ash disposal cost and further increase the PVRR saving from disposing all of Ghent's gypsum at Sterling.

Site M is substantially closer to Ghent than Site E/F (Ghent CCP Plan page 12 and Exhibit H). The estimated cost of hauling fly and bottom ash to Site E/F is $2,822,723 in 2013, and the corresponding haul Road maintenance cost is $53,529. Even reducing those costs by a modest 50% for the haul to Site M verses site E/F would produce another $21,800,000 in PVRR savings compared to CCP disposal at Ghent under Project 30.

EXHIBIT A

Coal Combustion Byproduct Plan for Ghent Station For

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Subsidiaries Kentucky Utilities and Louisville Gas and Electric

June 2009

CONFIDENTIAL INFORMATION REDACTED

1. Executive Summary

Kentucky Utilities Company's ("KU") Ghent station ("Ghent") produces three primary coal combustion byproducts ("CCP"): bottom ash, fly ash and gypsum, which are currently stored in two ash treatment basins and two gypsum stacking areas. These storage areas are expected to reach full capacity in 2012, creating a need for additional CCP management solutions.

A variety of on-site and off-site options were considered to meet CCP management needs at Ghent. The most effective solutions were identified through a needs analysis and economic analysis based on engineering cost estimates.

To address the pre-2013 need for gypsum storage capacity, an opportunity to remove a quantity of gypsum to be beneficially reused as structural fill was identified. This reuse option is significantly lower cost than transporting CCP to an off-site landfill, which is the other short-term option.

For longer-term CCP storage needs, KU contracted an engineering consultant to develop potential on-site storage alternatives. Of multiple options considered, four options were selected for further economic evaluation. Based on cost estimates and qualitative factors for these alternatives, the most favorable option is a single on-site landfill to store both ash and gypsum.

The most cost effective and environmentally sound CCP management options for Ghent are:

- a proposal for beneficial reuse of 1.3 million cubic yards ("MCY") of CCP (approximately 75% of annual CCP production) by Trans Ash, Inc. in 2010-2012 (Present value of revenue requirement ("PVRR") of [redacted] million or [redacted] per cubic yard), and
- the construction of a new on-site landfill system to store both ash and gypsum production for 25 years to be in-service by 2013 (PVRR of [redacted] million or [redacted] per cubic yard).

In addition, KU will continue to pursue other beneficial reuse opportunities that result in lower disposal costs.

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2. Background

Kentucky Utilities Company's ("KU's") Ghent generating station ("Ghent") is located in Carroll and Gallatin Counties, Kentucky and is comprised of four coal-fired generating units for a total net station capacity of over 1,900 MW. The station produces three primary coal combustion byproducts ("CCP"): bottom ash, fly ash and gypsum. The Ghent station has four existing on-site storage facilities for CCP as follows:

- Ash Treatment Basin ("ATB") #1
- ATB #2
- North Gypsum Stack
- South Gypsum Stack

The ATBs are used to store bottom ash and fly ash which are byproducts of burning coal. ATB #1 is at maximum capacity[1] and ATB #2 is nearing maximum desired capacity. As of February 2009[2], ATB #2 can hold approximately an additional 2.5 MCY of ash. Ghent is forecast to produce approximately 0.7 MCY of ash annually, thus depleting the capacity in ATB #2 in 2012.[3]

Gypsum is produced by Ghent's flue gas desulfurization ("FGD") systems, which use limestone reagent to remove sulfur dioxide from flue gas. Until an additional repository can be developed, Ghent's gypsum is stacked on site. Based on the plant's expected generation, the existing capacity of the north and south gypsum stacks (collectively the "gypsum stack") is expected to be exhausted in 2012.[4]

Some gypsum is currently sold to a third party for beneficial reuse.[5] CertainTeed, Inc. ("CertainTeed") currently pays KU [redacted] per cubic yard for gypsum to be used as a raw material in the production of wallboard. This contract began in 1999 and runs through 2024. CertainTeed does not have minimum or maximum volume obligations, but their expected annual volume is approximately 222,000 cubic yards of gypsum (approximately 20% of annual gypsum production) based on recent utilization data.[6]

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[1] ATB #1 is not relevant to this analysis as it is not currently receiving any CCP, although it is available for emergency use.

[2] A bathymetric survey of ATB #2 was conducted by HDR/Quest/Rudy for GAI Consultants in February 2009.

[3] The available capacity of ATB #2 at the end of June 2009 is forecasted to be approximately 2.3 MCY.

[4] The available capacity of the gypsum stack at the end of June 2009 is forecasted to be approximately 2.6 MCY.

[5] KU identifies economically and environmentally favorable options to beneficially reuse CCP, consistent with KU's Comprehensive Strategy for Management of CCP shown in Exhibit JNV-3.

[6] Gypsum sales to CertainTeed were 263,000 tons in 2007, 375,000 tons in 2008, and 103,000 tons year-to-date through May 2009. However, their purchases decreased late in 2008 and year-to-date in 2009 as the economy slowed.

3. Process and Methodology

KU and Louisville Gas and Electric Company (collectively "the Companies") develop the most effective plan for meeting the CCP storage needs at each generating station. The process of identifying the plan consists of the three following primary tasks which are performed by several departments within the Companies.

- Needs assessment
- Development of alternatives
- Comparison of alternatives

The CCP storage needs are defined by forecasting the production of CCP over the applicable planning period as compared to the existing storage capacity. The Project Engineering department and the applicable generating station are responsible for providing an estimate of remaining capacity.

The expected life of the existing storage capacity is based on the forecast of CCP production, which is developed by Generation Planning for all stations as a function of the expected coal usage for each unit. The Companies compile information regarding the cost of generation for each unit (fuel, variable O&M, emission costs, etc.), a description of the generation capabilities of each unit (capacity, heat rate curve, commitment parameters, emission rates, availability schedules, etc.), a load forecast, the market price of electricity, and the volumetric ability (transfer capability) to access the market. All of this information is brought together in the PROSYM™[7] software, which is used to model the economic operation of the Companies' generating system. The projected coal usage data provided by this model is checked for reasonableness by comparing the results to historical data.

The Project Engineering department develops alternatives for on-site CCP storage solutions and their associated costs. Any alternatives for off-site disposal such as beneficial reuse or off-site landfill disposal are provided by the generating stations' staff and a CCP team focused on exploring alternatives for byproduct storage. The cash flows for selected options are summarized and provided to Generation Planning for evaluation.

The Generation Planning department evaluates the storage and disposal options received from Project Engineering to determine the present value of revenue requirements ("PVRR") associated with the capital expenditures and O&M expenses of each option. This analysis is performed using the Capital Expenditure Recovery module of the Strategist®[8] software model.

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[7] The PROSYM™ model has formed the foundation of prior analyses involving certificates of convenience and necessity for new generating plants, environmental cost recovery for pollution control equipment, and the fuel adjustment clause.

[8] Strategist® is a proprietary, state-of-the-art resource planning computer model. The Capital Expenditure Recovery module is used to quantify the revenue requirements impact associated with capital projects.

4. Needs Assessment

The following capacities were provided by Project Engineering and the Ghent station:

- ATB #1 is at capacity and is available for emergency use only.
- As of February 2009, the remaining available capacity of ATB #2 is 2.5 million cubic yards.[9]
- The remaining available capacity of the gypsum stacks is estimated to be 2.9 MCY as of January 2009.[10]

The expected life of the remaining capacity of the ATB #2 and the Gypsum Stack were estimated by forecasting the CCP production of ash and gypsum at Ghent. The quantity of ash produced at Ghent is estimated at a coal specification of 11.5% ash by weight of the total quantity of coal used, or approximately 11.5 tons of ash per 100 tons of coal. Converting to volumetric measurement, assuming ash production consists of 80% fly ash and 20% bottom ash by weight, approximately 11.5 cubic yards of total ash is produced per 100 tons of coal.[11]

The chemical reaction by which gypsum is produced results in a net gypsum production of approximately 18% by weight of the total quantity of coal used,[12] or approximately 18 tons of gypsum per 100 tons of coal. Converting to volumetric measurement for the gypsum stack, approximately 17.8 cubic yards of gypsum is produced per 100 tons of coal.

The forecasted CCP production volume for Ghent is shown in Table 1 and depicted graphically in Figure 1 and Figure 2, based on the forecasted coal burn shown in Table 2. Table 2 also contains the historical quantities of coal burned as a comparison to the forecast. The increase in coal burn during the 2010-2013 period is due to the completion of the FGD installations at Ghent in 2009, which required prior scheduled outages on each of the Ghent units during 2007-2009. Also, with the addition of the FGDs, Ghent has lower fuel costs, resulting in higher forecasted generation.

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[9] Based on expected coal burn, Generation Planning forecasts that by the end of 2009, the remaining capacity of ATB #2 will be 1.9 MCY.

[10] Based on expected coal burn and existing beneficial reuse, Generation Planning forecasts that by the end of 2009, the remaining capacity of the gypsum stacks will be 2.2 MCY.

[11] Density assumptions for wet storage are 0.945 tons per cubic yard for bottom ash and 1.0125 tons per cubic yard for both fly ash and gypsum.

[12] Fuel specification assumptions include SO_2 content of approximately 5.9 lb/mmBTU and heat content of 22.16 mmBTU/ton.

Table 1: CCP Production Forecast (MCY)

CCP Production Forecast *(MCY – wet storage)*			
	Fly Ash	**Bottom Ash**	**Gypsum**
2009	0.54	0.14	0.88
2010	0.55	0.15	1.09
2011	0.58	0.15	1.12
2012	0.55	0.15	1.06
2013	0.55	0.15	1.09

Table 2: Ghent Coal Usage (Million Tons)

Ghent Coal Usage *(M Tons)*	
Historical	
2004	5.4
2005	5.6
2006	5.6
2007	5.3
2008	5.7
Forecast	
2009	5.6
2010	6.0
2011	6.3
2012	6.1
2013	6.1

The forecasted generation and the resulting coal usage at Ghent correspond to an average capacity factor of approximately 77%. This relatively high capacity factor is consistent with Ghent's low production cost. Since Ghent is already modeled as a baseload station, the risk of significantly underestimating CCP production is low. However, reduction in load or unexpected outages at Ghent could affect the capacity factor and lower future CCP production.

Figures 1 and 2 show the forecasted cumulative CCP production at the end of each year compared to the expected available capacity at the end of 2009. With current forecasts for ash production and without any additional on-site capacity or off-site storage or reuse, ATB #2 is expected to reach full capacity during 2012, as shown in Figure 1. Assuming no beneficial reuse beyond the expected 222,000 cubic yards per year by CertainTeed, the gypsum stack is also expected to reach maximum capacity in 2012, as shown in Figure 2.

Figure 1: ATB #2 Capacity

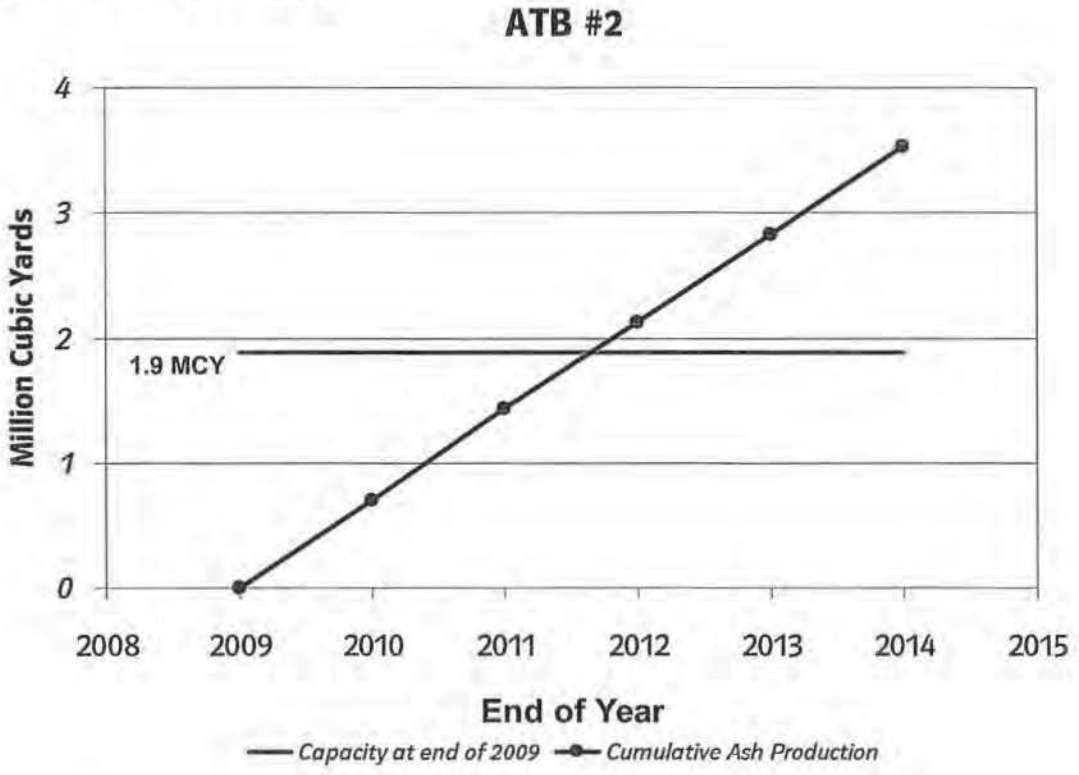
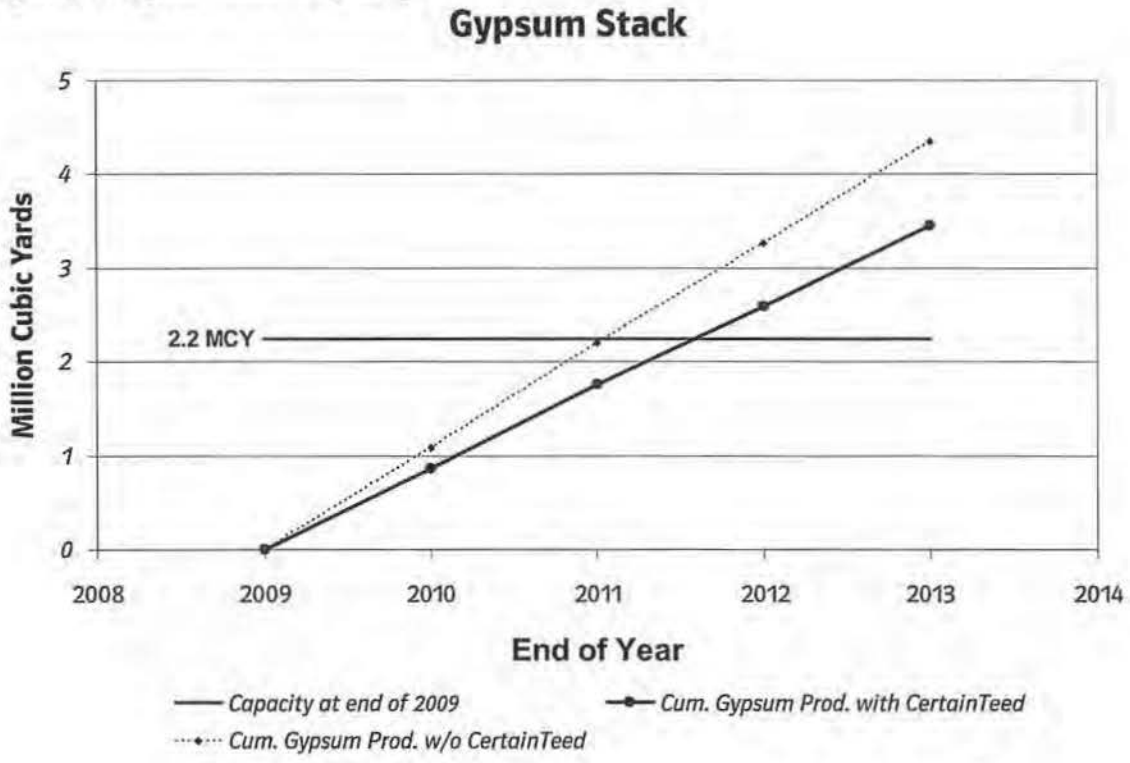


Figure 2: Gypsum Stack Capacity



In summary, the needs assessment indicates that additional CCP disposal alternatives will be needed for both ash and gypsum at Ghent by 2012. At least 0.6 MCY of CCP must be moved off-site in order to maintain operations of the existing storage facilities at Ghent through 2012.

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5. Development of Alternatives

In the case of CCP solutions for Ghent, Project Engineering and the CCP team developed two sets of options for evaluation:

1. Short-term storage options to meet 2009-2012 requirements
2. Long-term storage options to meet 2013-2037 requirements.

The short-term options were developed because long-term options cannot be in service before 2013, and on-site capacity is expected to be depleted in 2012. These options were evaluated independently, leading to a recommendation for short-term and long-term solutions.

5.1 Short-Term Disposal

As a result of ATB #2 and the gypsum stack nearing their maximum desired storage capacities, the station, in conjunction with the CCP Team, negotiated with Trans Ash, Inc. ("Trans Ash"), a company specializing in the reuse of CCP, to beneficially reuse 1.3 MCY (approximately 1.5 million tons as hauled) of CCP as structural fill. The 2009 base cost of this proposal is [redacted] per MCY[13], subject to annual adjustments to the base price and fuel cost adjustments. The base price is redetermined by increasing the previous year's price by 90 percent of the year-over-year percent change in the Consumer Price Index – All Urban Customers, U.S. City Average. The fuel adjustments are made for both off-road and on-road diesel use. Off-road fuel adjustments are calculated as the difference between the base diesel unit price of [redacted] per gallon and the average unit diesel price paid multiplied by the quantity of off-road diesel purchased each year. The on-road diesel adjustment is calculated as the product of the average quantity of fuel used and the difference between the base diesel price and the index price as published by the U.S. Department of Energy, Energy Information Administration in "The U.S. No 2 Diesel Low Sulfur (15-500 ppm) Retail Sales by All Sellers (Cents per Gallon)"

An agreement with Trans Ash would require that the full 1.3 MCY be moved in 2010-2012 to satisfy the end consumer of the beneficial reuse opportunity. Consistent with KU's CCP management strategy, this fill location has been evaluated and confirmed as appropriate for beneficial reuse. The location is not in an environmentally sensitive area.

The only near-term alternative to beneficial reuse of CCP is the use of an existing off-site commercial landfill. For 2009, the total unit cost of storage in the closest off-site landfill was estimated to be [redacted] per cubic yard[14]. In contrast to the Trans Ash proposal, an off-site landfill storage option requires that only a minimum of 0.6 MCY must be moved off-site prior to 2013 to ensure continuing operations at Ghent.

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13 [redacted] per MCY as stored is equivalent to [redacted] per ton as hauled.

14 [redacted] per cubic yard is equivalent to [redacted] per ton as hauled for transport and storage at Valley View landfill near Sulphur, KY, approximately 25 miles from Ghent. Cost components per ton are [redacted] for excavating and loading, [redacted] for hauling, and [redacted] for landfill tipping fee. This quoted tipping fee is slightly below the listed rates of [redacted]/ton for other regional public landfills.

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5.2 Long-Term Storage

To meet the long-term storage needs at Ghent, KU contracted GAI Consultants, Inc., Pittsburgh, PA ("GAI") to provide both an Initial Siting Study ("ISS") and a Final Conceptual Design Study of CCP storage alternatives at Ghent.[15] The ISS identified over forty potential alternatives based on combinations of a number of variables, including storage and transport methods, site locations, and relocation of transmission lines. As a result of this study, four on-site alternatives shown in Table 3 were selected for further consideration. In the process of developing the Final Conceptual Design Study, GAI refined the cost estimates for these alternatives in addition to other detailed engineering tasks. As an alternative to building on-site storage facilities, use of an existing off-site commercial landfill for storing future CCP was also considered as a long-term option.

Table 3: Alternatives for Long-Term Storage

		On-Site				
Case		**14/28**	**37**	**41**	**42/28**	**Off-Site Landfill**
Description		2 Landfills	1 Landfill	1 Pond	1 Pond 1 Landfill	
Total Capacity *(MCY)*		46.1	46.1	53.6	48.3	46.1 needed
Nominal Cost *($M)*	**Capital**					
	O&M[16]					

Each of the cases for on-site long-term storage was designed to hold twenty-five years of CCP production with phased construction. The total capacity required for each case differs due to the different density of CCP stored in ponds versus landfills. Table 4 shows the construction periods, the in-service years, and the capacity for each phase of the on-site cases. The site locations as shown in Figure 3 are noted as follows:

- Site M is north of ATB #2 on property owned by KU.
- Site E/F which is southeast of ATB #2 and include properties owned by KU and approximately 350 acres owned by others.
- Pond L represents vertical and lateral expansion east of ATB #2 with an impoundment.

[15] A preliminary draft of the Final Conceptual Design Study is shown in Exhibit JNV-4.
[16] The O&M figures in Table 3 include the cost for power to operate the on-site storage alternatives.

Figure 3: CCP Storage Site Alternatives

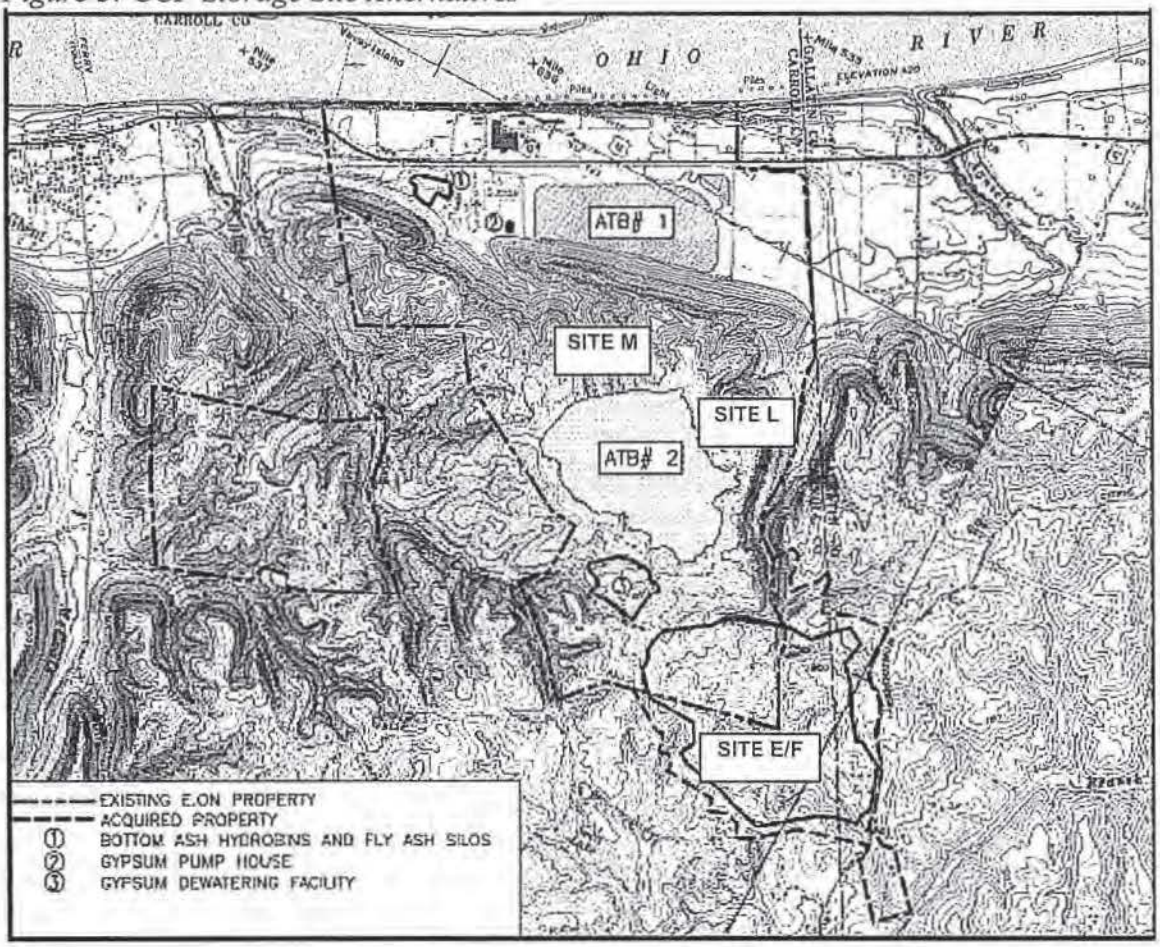


Table 4: Construction Phases for On-Site Storage Options

Case		14/28		37	41	42/28	
Site Location		M	E/F	E/F	L	L	E/F
Phase 1	Construction	2010-14		2010-14	2010-13	2010-14	
	In-Service	2013		2013	2013	2013	
	Capacity *(MCY)*	5.3	5.7	14.7	16.5	7.2	8.4
Phase 2	Construction	2016-18		2018-19	2017-19	2018-20	
	In-Service	2019		2020	2020	2021	
	Capacity *(MCY)*	8.5	8.0	12.3	15.7	8.3	7.7
Phase 3	Construction	--	2023-25	2024-26	2025-27	2027-29	
	In-Service	--	2026	2027	2028	2030	
	Capacity *(MCY)*	--	12.4	19.1	21.6	6.1	8.0
Phase 4	Construction	2027-29	--	--	--	--	
	In-Service	2030	--	--	--	--	
	Capacity *(MCY)*	6.2	--	--	--	--	--

Case 14/28. Case 14/28 consists of separate landfills for ash and gypsum with ash stored at Site M and gypsum stored at Site E/F. Construction of the landfills consists of four phases as shown in Table 4 with the first phase beginning in 2010 and the final phase ending in 2029. Figure 4 shows the phased cumulative design capacity of the landfill at Site M compared to the forecasted ash production. Figure 5 shows the phased cumulative design capacity of the landfill at Site E/F compared to the forecasted gypsum production both including and excluding the effect of the expected gypsum reuse by CertainTeed. These figures, as well as Figures 6-9, demonstrate that the designs for the timing and volume of capacity additions for each of the cases considered are reasonable compared the forecasted CCP production.

Figure 4: Long-Term Needs Assessment – Case 14/28, Landfill M

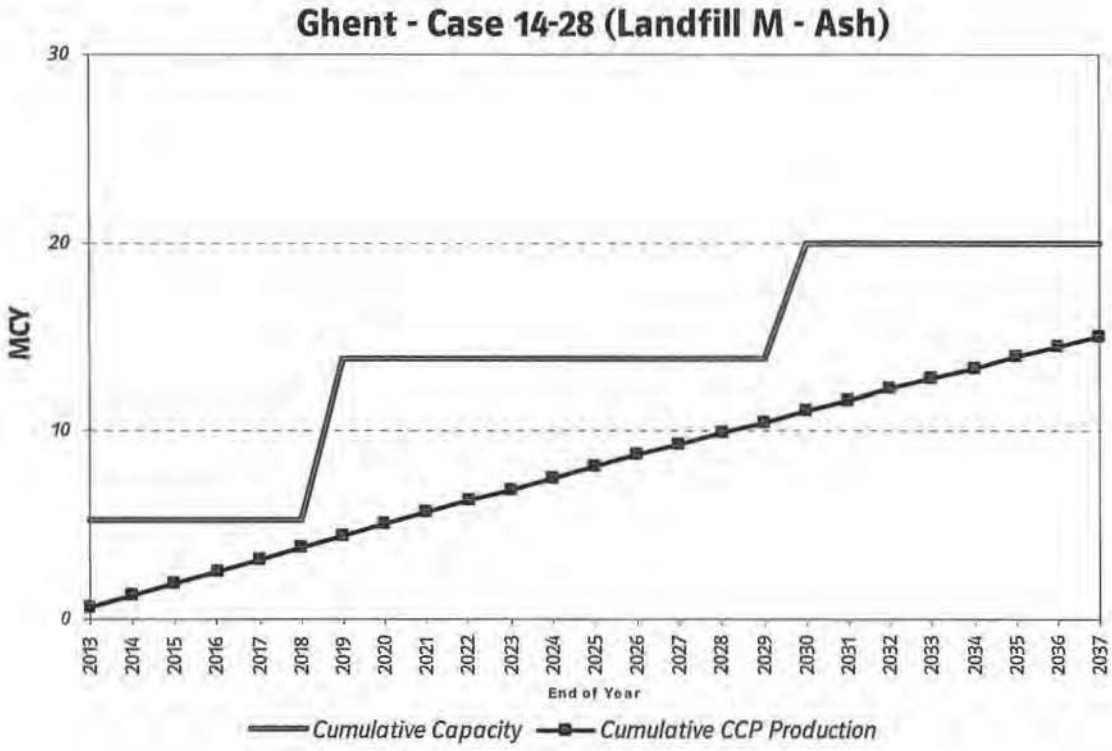
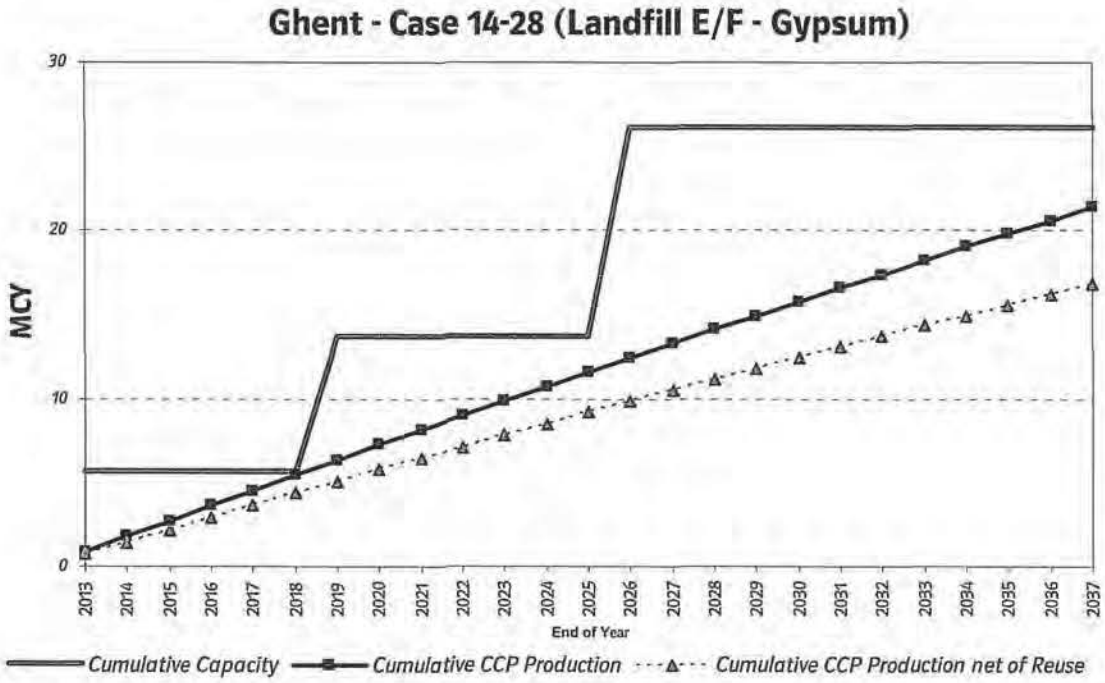
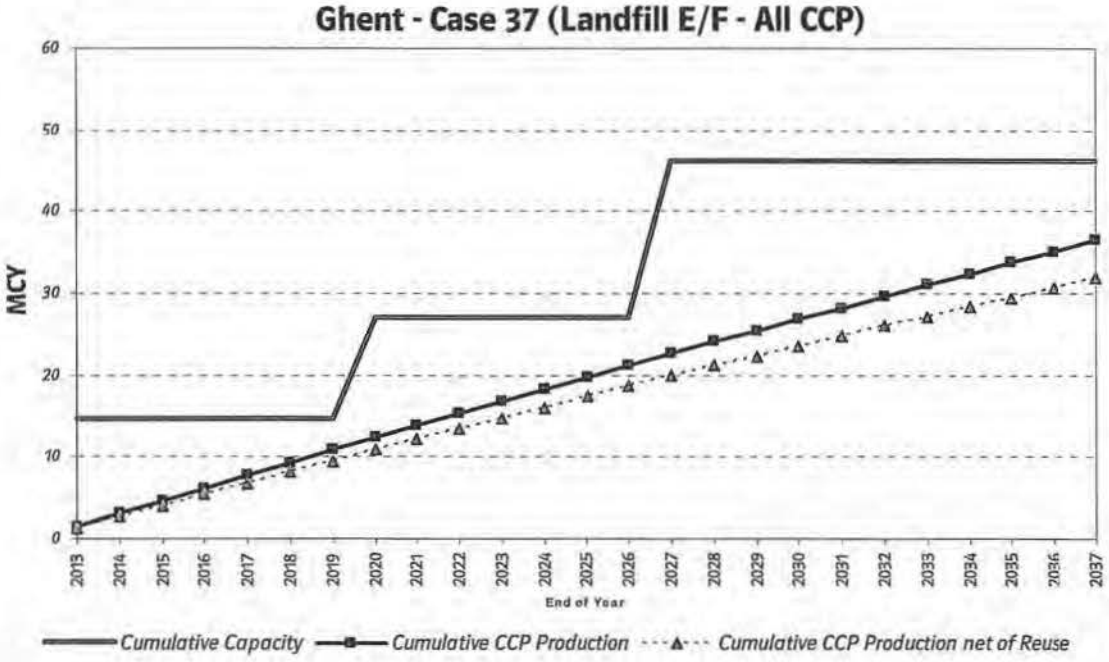


Figure 5: Long-Term Needs Assessment – Case 14/28, Landfill E/F



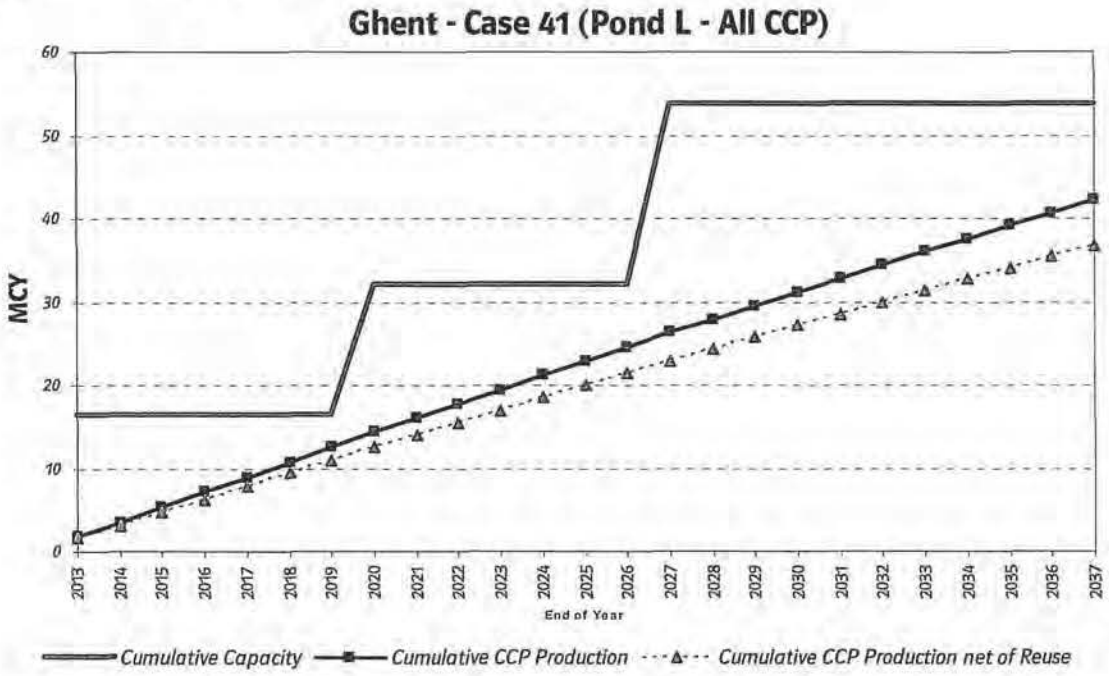
Case 37. Case 37 consists of a single landfill for both ash and gypsum at Site E/F. The construction schedule consists of three phases beginning in 2010 and ending in 2026. Figure 6 shows the phased cumulative design capacity of this landfill compared to the forecasted cumulative CCP production both including and excluding the effect of the expected gypsum reuse by CertainTeed.

Figure 6: Long-Term Needs Assessment – Case 37, Landfill E/F



Case 41. Case 41 consists of a single pond for both ash and gypsum at Site L. The construction schedule consists of three phases beginning in 2010 and ending in 2027. Figure 7 shows the phased cumulative design capacity of this landfill compared to the forecasted cumulative CCP production both including and excluding the effect of the expected gypsum reuse by CertainTeed.

Figure 7: Long-Term Needs Assessment – Case 41, Pond L



Case 42/28. Case 42/28 consists of a pond at "Site L" for ash and a landfill at "Site E/F" for gypsum. Construction of these facilities consists of four phases as shown beginning in 2010 and the final phase ending in 2029. Figure 8 shows the phased cumulative design capacity of the pond at Site L compared to the forecasted ash production. Figure 9 shows the phased cumulative design capacity of the landfill at Site E/F compared to the forecasted gypsum production both including and excluding the effect of the expected gypsum reuse by CertainTeed.

Figure 8: Long-Term Needs Assessment – Case 42/28, Pond L

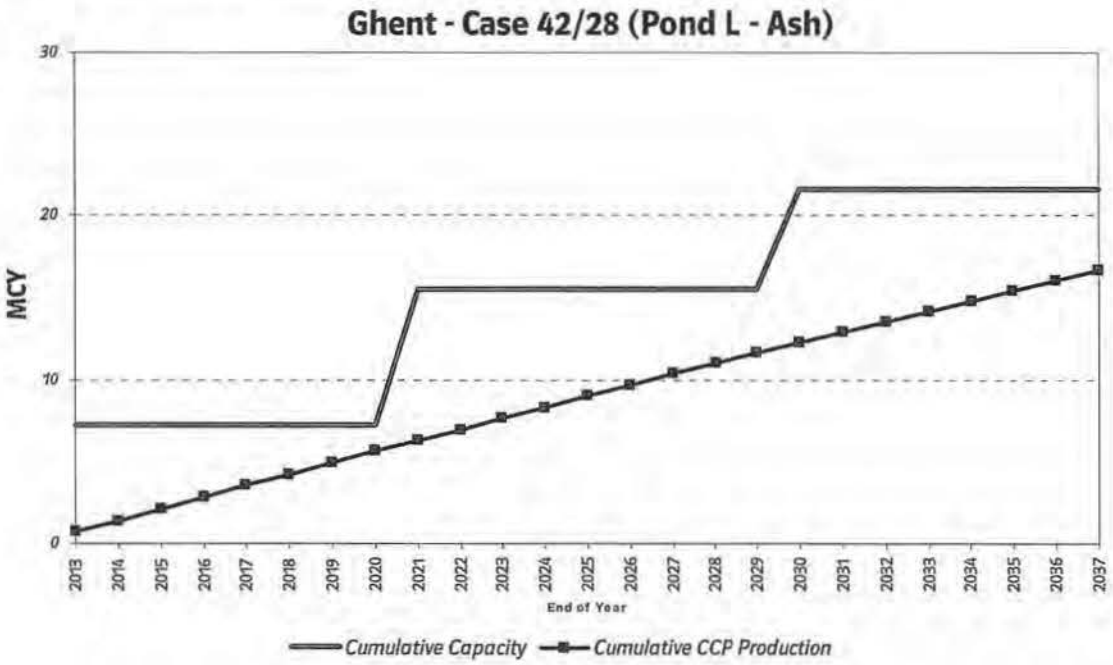
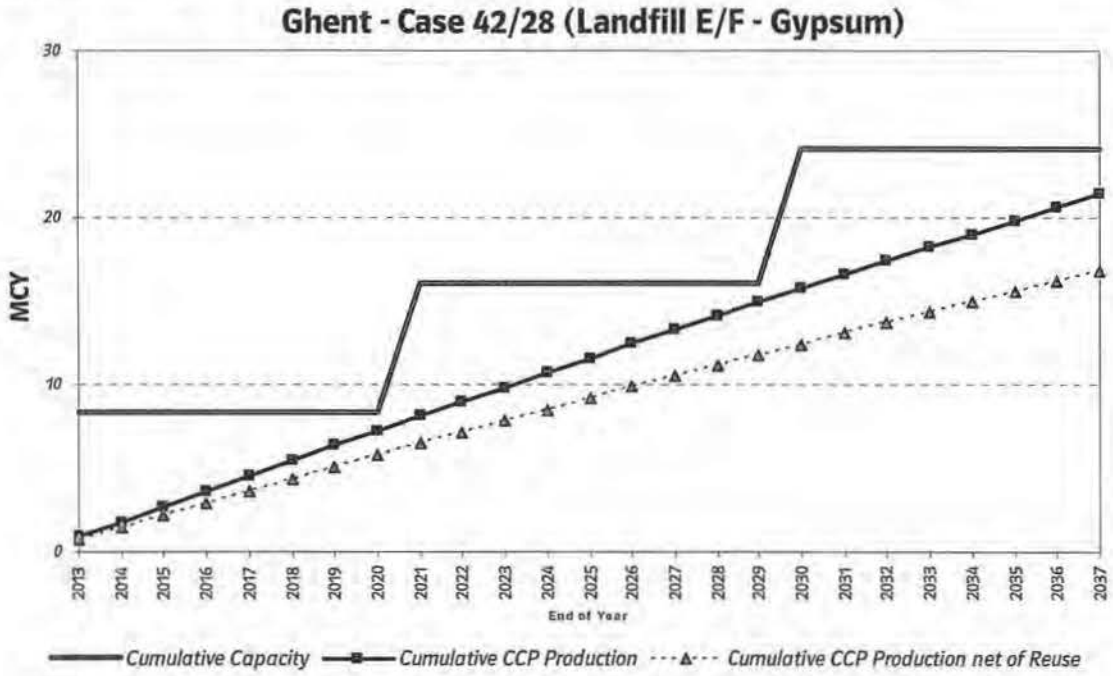


Figure 9: Long-Term Needs Assessment – Case 42/28, Landfill E/F



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6. Comparison of Alternatives

6.1 Short-Term Disposal

The short term disposal analysis compares the cost of a beneficial reuse initiative with Trans Ash to the cost of off-site landfill disposal. The Trans Ash proposal is to move 1.3 MCY in 2010 through 2012 and the plan for off-site landfill disposal is to move 0.6 MCY in 2012. Both of these options consist only of O&M costs, with no additional capital expenditure. As seen in Table 5, the Trans Ash proposal is the least-cost option to meet the short term capacity needs at Ghent. On a cost per volume basis, the Trans Ash option is almost 80% less costly than the off-site landfill option. Also, despite the higher volume requirement, the Trans Ash proposal's PVRR is $9.8 million lower than the off-site landfill alternative.

Table 5: PVRR Analysis Summary of Short-Term Alternatives

	Trans Ash Beneficial Reuse	**Off-site Landfill Disposal**
Total Quantity *(MCY)*	1.3	0.6
PVRR *(2009 million $)*		
Delta to Least Cost Case	*Least Cost*	*9.8*
Unit Cost *(2009 PVRR $/cubic yard)*		

6.2 Long-Term Storage

The long-term storage evaluation (Table 6) compares the PVRR and per-unit cost of four on-site storage alternatives selected in the engineering studies, in addition to disposal in an off-site commercial landfill. The financial assumptions related to the analysis of these cases are shown in Appendix 1, the projected cash flows are shown in Appendix 2, and the annual revenue requirements are detailed in Appendix 3.

The following is a brief comparison of the results:

Case 37. Case 37 consists of a common on-site landfill for both ash and gypsum. This is least cost on a PVRR basis by $26 million. This option is also lowest cost on a per unit volume basis at [redacted] PVRR per cubic yard. The favorable capital profile of this project results from the single landfill approach compared to Case 14/28, which includes separate landfills for ash and gypsum.

Case 14/28. Case 14/28 consists of separate landfills for ash and gypsum and involves higher up-front capital costs ($34 million higher through 2017, $6 million of which is due to transmission expenditures), an accelerated timeline for the addition of subsequent phases, and an additional construction phase compared to Case 37. This is partially offset by slightly lower annual O&M costs due to reduced distances for transporting ash. In summary, the lower costs associated with the shorter transport distances are overcome by the additional costs of the two landfills.

Cases 41 and Case 42/28. Case 41 consists of a single pond for both ash and gypsum and Case 42/28 consists of an ash pond and a gypsum landfill. The construction of an ash

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pond is significantly more capital intensive compared to a landfill, although the ongoing operation is less costly. Through 2016, both of these cases are approximately $95 million higher in total capital costs than Case 37. Construction of the second and third phases increases the capital premium to $850 million for Case 41 and $350 for Case 42/28. Inclusion of the pond closure costs in 2038 raises these figures to $1,145 million and $475 million for Cases 41 and 42/28, respectively. Although the O&M is significantly lower for these cases compared to Case 37, it is not enough to offset the effect of the higher initial capital expenditures.

Off-site landfill. The off-site landfill option consists only of O&M costs, but this option is the highest-cost alternative due to the high unit cost of off-site landfill disposal, which is approximately [redacted] PVRR per cubic yard.

Beneficial Reuse. KU will evaluate beneficial reuse opportunities as they arise, and will pursue proposals that are favorable to on-site disposal.

Table 6: PVRR Analysis Summary of Long-Term Alternatives
(2009 PVRR million $)

Case	14/28	37	41	42/28	Off-Site Landfill
PVRR					
Capital	[redacted]				
O&M					
Total					
Delta to Least Cost Case	*26*	*Least Cost*	*254*	*125*	*413*
Capacity *(MCY)*	46.1	46.1	53.6	48.3	46.1
Unit Cost *(2009 PVRR $/CY)*	[redacted]				

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7. Recommendations

The needs assessment demonstrates a need for additional CCP storage capacity at the Ghent station by 2012. Analysis of the options provided by Project Engineering demonstrates that the most favorable alternatives to meet Ghent's CCP storage needs are:

- Short-term: the proposal for beneficial reuse of 1.3 MCY of gypsum by Trans Ash in 2010 through 2012. The PVRR is [redacted] million, or [redacted] per cubic yard.
- Long-term: constructing the first phase of an on-site landfill to store both ash and gypsum, to be in-service in 2013. The PVRR is [redacted] million, comprised of [redacted] million capital and [redacted] million O&M.

The short-term solution utilizing beneficial reuse is almost 80% less on a per unit of volume basis than disposal at an off-site commercial landfill. The unit cost of this short-term recommendation is also lower than the unit cost of the recommended long-term on-site landfill. The long-term solution includes the construction of a single landfill and is 4% less on a PVRR basis than the dual landfill option (Case 14/28).

Further details regarding the status of this project and the expected construction schedule are shown in Appendix 4.

Appendix 1

Analysis Assumptions

- Study Period: 30-year period for operational costs impacts (2009-2038)
  50-year period for capital costs impacts (2009 through tax life of final project phase).

  The revenue requirements associated with capital costs are determined via the Capital Expenditure and Recovery module of the Strategist production and capital costing software. To completely account for capital projects costs over their lifetime, the revenue requirements associated with new capital projects were included beyond the operational study period through the end of their tax life.

- Capital and O&M costs associated with the addition of new environmental projects will be subject to recovery through the Environmental Cost Recovery ("ECR") mechanism. O&M costs for electrical power usage required to operate equipment related to CCP storage are included when comparing alternatives (noted as "Power" in Appendix 2) but are not included as recoverable costs for calculation of ECR billing factors.

- Financial data
  - Discount rate: 7.81%
  - Income tax rate: 38.9%
  - Insurance rate: 0.07%
  - Property tax rate: 0.15 %
  - Percentage of debt in capital structure: 47.01%
  - Debt interest rate/weighted cost of debt: 4.64%
  - Return on equity: 10.63%
  - Book life - average landfill phase (non-transmission): 12 years
  - Book life – transmission (line relocation): 40 years
  - Tax life: 20 years
  - Annual capital and O&M escalation rate: 6%
  - Contingency included in cost estimates: ~28%
  - E.ON US overhead included in capital costs 3.5%
  - Capital expenditures are assumed to occur at year end.

- CCP data
  - Coal ash content: 11.5%
  - Coal SO_2 content: ~5.9 lb/mmBTU
  - Coal heat content: 22.16 mmBTU/ton
  - FGD removal efficiency:
    Units 1, 3, 4 98%
    Unit 2 (currently Unit 1) 94.3%

Appendix 2

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Projected Cash Flows

Annual Cash Flows Short-Term Options O&M Only *($ thousands)*		
Case	**Beneficial Reuse**	**Off-Site Landfill**
2008	[redacted]	
2009		
2010		
2011		
2012		
2013+		
Total		

$ thousands

Case **14/28** **2 landfills**

	Annual Cash Flows										
	Capital						**O&M**				**Total**
	Phase1	Phase2	Phase3	Phase4	Transmission	**Total Capital**	Non-Power	Power	Trans Ash	**Total O&M**	
2008	[redacted]										
2009											
2010											
2011											
2012											
2013											
2014											
2015											
2016											
2017											
2018											
2019											
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2029											
2030											
2031											
2032											
2033											
2034											
2035											
2036											
2037											
2038											
Total											

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$ thousands

Case 37 1 landfill

	Annual Cash Flows										
	Capital						O&M				Total
	Phase1	Phase2	Phase3	Phase4	Transmission	Total Capital	Non-Power	Power	Trans Ash	Total O&M	
2008											
2009											
2010											
2011											
2012											
2013											
2014											
2015											
2016											
2017											
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2020											
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2031											
2032											
2033											
2034											
2035											
2036											
2037											
2038											
Total											

CCP Plan for Ghent Station
June 2009
Appendix 2 – Projected Cash Flows

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$ thousands

Case 41 1 pond

	Annual Cash Flows										
	Capital						O&M				Total
	Phase1	Phase2	Phase3	Phase4	Transmission	**Total Capital**	Non-Power	Power	Trans Ash	**Total O&M**	
2008	[redacted]										
2009											
2010											
2011											
2012											
2013											
2014											
2015											
2016											
2017											
2018											
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2032											
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2034											
2035											
2036											
2037											
2038											
Total											

CCP Plan for Ghent Station
June 2009
Appendix 2 – Projected Cash Flows

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$ thousands

Case 42/28 1 pond/1 landfill

	Annual Cash Flows										
	Capital						O&M				Total
	Phase1	Phase2	Phase3	Phase4	Transmission	Total Capital	Non-Power	Power	Trans Ash	Total O&M	
2008	[redacted]										
2009											
2010											
2011											
2012											
2013											
2014											
2015											
2016											
2017											
2018											
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2032											
2033											
2034											
2035											
2036											
2037											
2038											
Total											

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$ thousands

Case	Off-Site Landfill (O&M Only)		
	Capital	O&M	
Cost Escalation		6%	2%
2008			
2009			
2010			
2011			
2012			
2013			
2014			
2015			
2016			
2017			
2018			
2019			
2020			
2021			
2022			
2023			
2024			
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2032			
2033			
2034			
2035			
2036			
2037			
2038			
Total			

Appendix 3

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Revenue Requirements Detail

$ thousands

Case	Short-Term Beneficial Reuse (O&M Only)	
	Capital	O&M
2008	[redacted]	
2009		
2010		
2011		
2012		
2013+		
2009 PVRR		

$ thousands

Case	Short-Term Off-Site Landfill (O&M Only)	
	Capital	O&M
2008	[redacted]	
2009		
2010		
2011		
2012		
2013+		
2009 PVRR		

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$ thousands

Case 14/28 2 landfills

	Annual Revenue Requirements										
	Capital						O&M				Total
	Phase1	Phase2	Phase3	Phase4	Transmission	Total Capital	Non-Power	Power	Trans Ash	Total O&M	
2009											
2010											
2011											
2012											
2013											
2014											
2015											
2016											
2017											
2018											
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2021											
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2053											
2054											
2055											
2056											
2057											
2058											
2009 PVRR											

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$ thousands

Case 37 1 landfill

	Annual Revenue Requirements										
	Capital						O&M				Total
	Phase1	Phase2	Phase3	Phase4	Transmission	Total Capital	Non-Power	Power	Trans Ash	Total O&M	
2009											
2010											
2011											
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2021											
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2057											
2058											
2009 PVRR											

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$ thousands

Case 41 1 pond

	Annual Revenue Requirements										
	Capital						O&M				Total
	Phase1	Phase2	Phase3	Phase4	Transmission	**Total Capital**	Non-Power	Power	Trans Ash	**Total O&M**	
2009	[redacted]										
2010											
2011											
2012											
2013											
2014											
2015											
2016											
2017											
2018											
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2009 PVRR											

CCP Plan for Ghent Station
June 2009
Appendix 3 – Revenue Requirements Detail

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$ thousands

Case 42/28 1 pond/1 landfill

	Annual Revenue Requirements										
	Capital						O&M				Total
	Phase1	Phase2	Phase3	Phase4	Transmission	Total Capital	Non-Power	Power	Trans Ash	Total O&M	
2009	[redacted]										
2010											
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2058											
2009 PVRR											

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Case **Off-Site Landfill (O&M Only)**

$ thousands

using 6% cost escalation

	Capital	O&M
2008	[redacted]	
2009		
2010		
2011		
2012		
2013		
2014		
2015		
2016		
2017		
2018		
2019		
2020		
2021		
2022		
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2036		
2037		
2038		
2009 PVRR		

using 2% cost escalation

	Capital	O&M
2008	[redacted]	
2009		
2010		
2011		
2012		
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2017		
2018		
2019		
2020		
2021		
2022		
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2038		
2009 PVRR		

Appendix 4

Project Status *(As of April 2009)*

Detailed Design

The detailed design phase for Case 37 is currently in progress. Meetings are being conducted with the E.ON U.S. property appraiser and the individual owners of properties within the boundaries of Site F. After obtaining approval from these property owners, geotechnical, archaeological, ecological, and historical structures studies have begun. This will allow for the completion of the detailed engineering design and the start of the development of the permits for this location. The permits are expected to be submitted by the end of 2009.

Construction Schedule

The preliminary design for the landfill is to develop it in three distinct phases. This detail as well as the closure plan for each phase will be further developed in the detailed design phase. The current schedule is shown in Table A4-1.

Table A4-1: Preliminary Construction Schedule

Task	Schedule
Property acquisition	3rd Quarter 2009
Begin first phase landfill development	2nd Quarter 2010
Finish first phase landfill development	4th Quarter 2014
Begin second phase landfill development	2nd Quarter 2018
Finish second phase landfill development	4th Quarter 2019
Begin third phase landfill development	2nd Quarter 2024
Finish third phase landfill development	4th Quarter 2026

The risks associated with the project include the following:

- Inability to reach a settlement on purchase price for one or more of the properties required for the site, resulting in lengthy eminent domain litigation
- Discovery of unknown geotechnical issues
- Litigation and intervention of the 401/404 permits for Sites E/F could delay the construction of this section of the work
- Failure of major components during start-up
- Unseasonable weather, such as exceptionally heavy rainfall, late spring, early on-set of winter, etc.
- Engineering design failure of a component of design
- Contractor delays due to shortage of materials or manpower issues
- Change in regulations

EXHIBIT B

Revenue Requirements Summary
2009 Amended Plan - KU

		2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Project 30	**Ghent Landfill - Phase I**										
	Revenue Requirement										
	Eligible Plant	4,321,671	46,476,848	105,485,803	177,577,356	191,133,916	201,941,953	202,576,976	203,254,220	203,969,979	203,969,979
	Less: Retired Plant	-	-	-	-	-	-	-	-	-	-
	Less: Accumulated Depreciation	-	-	-	-	(5,110,443)	(10,744,624)	(16,396,577)	(22,067,370)	(27,758,132)	(33,448,895)
	Plus: Accumulated Depreciation on retired plant	-	-	-	-	-	-	-	-	-	-
	Less: Deferred Tax Balance	-	-	-	-	(732,114)	(3,915,287)	(6,717,731)	(9,167,625)	(11,289,716)	(13,100,909)
	Plus: Deferred Tax Balance on retired plant	-	-	-	-	-	-	-	-	-	-
	Environmental Compliance Rate Base	4,321,671	46,476,848	105,485,803	177,577,356	185,291,361	187,282,042	179,464,668	172,019,025	164,922,131	157,420,175
	Rate of return	11.12%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
		$ 480,509	$ 5,098,393	$ 11,571,030	$ 19,478,952	$ 20,325,122	$ 20,543,496	$ 19,685,976	$ 18,869,243	$ 18,090,765	$ 17,267,855
	Operating expenses	84,800	121,349	128,630	136,348	19,003,308	20,143,507	21,352,117	22,633,244	23,991,239	25,430,713
	Annual Depreciation expense	-	-	-	-	5,110,443	5,634,180	5,651,953	5,670,793	5,690,762	5,690,762
	Less depreciation on retired plant	-	-	-	-	-	-	-	-	-	-
	Annual Property Tax expense	-	6,483	69,716	158,229	266,366	279,035	286,796	279,274	271,780	264,318
	Total OE	$ 84,800	$ 127,832	$ 198,346	$ 294,577	$ 24,380,117	$ 26,056,723	$ 27,290,866	$ 28,583,310	$ 29,953,782	$ 31,385,793
	Total E(m)	565,309	5,226,225	11,769,376	19,773,528	44,705,239	46,600,208	46,976,843	47,452,553	48,044,547	48,653,648

EXHIBIT C

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

THE APPLICATION OF KENTUCKY UTILITIES COMPANY FOR A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY AND APPROVAL OF ITS 2009 COMPLIANCE PLAN FOR RECOVERY BY ENVIRONMENTAL SURCHARGE	))))))	CASE NO. 2009-00197

DIRECT TESTIMONY OF
JOHN N. VOYLES, JR.
VICE PRESIDENT, TRANSMISSION AND GENERATION SERVICES
KENTUCKY UTILITIES COMPANY

Filed: June 26, 2009

contain sufficient capacity for bottom ash storage for approximately 30 years. The Main Pond will have approximately six (6) years of projected remaining capacity after elevation 912 feet is completed in 2012.

Exhibit JNV-8 is a conceptual design report for the Brown station ash treatment basin, prepared by the Fuller Mossbarger Scott and May engineering firm. Exhibit JNV-9 is a preliminary design report for the Brown station ash treatment basin, also prepared by Fuller Mossbarger Scott and May engineering firm. Exhibits JNV-8 and JNV-9 are on the compact disc included with this testimony and provide more details associated with this project.

Q. Is this project a cost-effective means of complying with environmental regulations and permits?

A. Yes, this project allows KU to continue to comply with all applicable environmental regulations. As first demonstrated in Case No. 2004-00426, and consistent with the 2006 ECR Update made to the Commission staff, the phased approach to the construction of the ash treatment basins continues to be the least-cost approach to manage CCP at the Brown station. As detailed in the testimony of Mr. Schram, high costs continue to preclude cost effective off-site alternatives.

Project 30 – Ghent Station Landfill

Q. Please describe the new landfill at the Ghent Station (Project 30), the anticipated cost and the associated timeline.

A. Project 30 consists of the first phase (Phase I) of a three phase, new landfill construction project at the Ghent station for continued on-site management of CCP. Completion of this project requires the procurement of approximately 350 acres of

land and relocation of approximately 2,500 linear feet of transmission line, existing underground utilities and a small cemetery (currently known to contain six burial plots). The project includes a transport system for the CCP material and the installation of a leachate collection/sediment retention pond. Phase I is expected to cost approximately $204 million with a total project capital cost (Phases I-III) estimated to be approximately $360 million. Phase I construction is expected to take 18-24 months to complete and is expected to be in-service by 2013.

Of the two existing on-site ash treatment basins, Basin #2 is currently the only operational basin at the Ghent station. Basin #1 reached its maximum desired capacity in 1995. Basin #2 was put into service in 1995 with a storage capacity of 2,580 acre-feet. In Case No. 2002-00208, KU advised the Commission that Basin #2 would be constructed in two phases. Detailed bids indicated that the two phase construction to elevation 800 feet had a projected total cost of $25.9 million (2002 dollars), while construction to 800 feet in one project had a total cost of $17.3 million. To take advantage of this significant cost savings, KU modified the construction project and undertook a single project to elevate the dike to 800 feet. As mentioned in Exhibit CRS-3 of Mr. Schram's testimony (the Coal Combustion Byproduct Plan for the Ghent station), vertical expansion of Basin #2 beyond 800 feet at Ghent was determined to be cost prohibitive.

Project 30 (Phase I of the proposed new landfill at the Ghent generating station) includes the following scope of work:

1. **Initial Siting Study** (Completed) – This phase evaluated various CCP storage locations on existing Ghent property and the area surrounding the plant. Initially, 42 landfill and impoundment scenarios were evaluated during this study.

2. **Conceptual Design** (Completed) – This phase took the results of the Initial Siting Study and developed 5 storage alternatives and provided scope of work estimates and net present value evaluations. Based on this data the best storage alternative was chosen, Case #37 – Single 25 year, landfill located on both existing plant and non-plant property.

3. **Final Design** (In Progress) – This phase will design and permit Case #37. Work in this phase will include the landfill design/permitting, wetlands/stream mitigation, transmission/distribution line relocation design, various environmental studies, etc. The goal of this phase is to obtain the construction permits, develop Issued for Construction drawings and specifications for all phases, as well as develop the landfill O&M manual.

4. **Phase I Construction** – Once the Certificate of Public Convenience and Necessity ("CPCN") and the permits have been received, a contractor will be chosen to perform the following (this is a high level list of activities):

- Mobilization
- Clearing and grubbing of the landfill and borrow areas
- Construction of stormwater/sediment ponds
- Grade work to attain the proper subgrade of the landfill
- Development of the borrow site(s)
- Installation of the liner system
- Installation of the leachate collection system, ponds, as well as the transfer system
- Construction of new site access roads
- Installation of the gypsum fines systems
- Construction of the CCP transfer storage facility across US-42
- Installation of the pipe conveyor
- Construction of the Gypsum Dewatering facility
- Upgrades to existing CCP transfer systems
- De-mobilization

Exhibit JNV-10 consists of two GAI Consultants reports on the initial siting study and conceptual design of the Ghent station landfill and is on the compact disc included with this testimony. Exhibit JNV-10 provides more details associated with this project.

Q. Is KU requesting a CPCN for the proposed landfill at Ghent (Project 30)?

A. Yes, as discussed in the testimony of Mr. Bellar, KU is requesting a CPCN for Project 30 in Exhibit JNV-1. Project 30 is associated with the construction of a new landfill and supporting systems at the Ghent station.

Q. Why is KU seeking a CPCN for Project 30, the proposed Ghent landfill at this time?

A. As discussed in Exhibit CRS-3 of Mr. Schram's testimony, KU's Ghent station produces three (3) coal combustion byproducts: bottom ash, fly ash and gypsum. The station has two (2) existing on-site treatment basins for ash and two (2) stacking areas for gypsum. Basin #1 is at its maximum desired capacity. As discussed in Exhibit CRS-3, Basin #2 and the gypsum stack facilities are both forecasted to reach their maximum desired capacity in 2012. In accordance with the CCP Strategy and the analysis presented in Mr. Schram's testimony, the recommended long-term CCP management alternative is Project 30, a landfill for all CCP material. The preliminary construction schedule for this project requires construction of the landfill to begin in 2010. As such, KU is requesting a CPCN in support of this project.

Q. What alternatives to the proposed project were evaluated?

A. The Initial Siting Study identified 42 potential alternatives based on combinations of variables including

- storage and CCP transport methods

- site locations
- transmission line relocation needs

Consistent with the CCP Strategy, opportunities for beneficial reuse were also evaluated by the Companies. The beneficial reuse alternatives at Ghent are discussed in Project 33. Mr. Schram's testimony provides details associated with the evaluation of the alternatives at Ghent.

Q. Is the proposed new on-site landfill at Ghent (Project 30) consistent with the Companies' strategy for long-term management of CCP?

A. Yes. The landfill ensures adequate on-site CCP management capacity exists for the long-term and will be constructed in multiple phases. Furthermore, as discussed in Mr. Schram's testimony, analytical assessments have been performed to identify and utilize any cost effective beneficial reuse alternatives in order to minimize environmental impact and promote environmental stewardship.

Q. Is this project a cost-effective means of complying with environmental regulations and permits?

A. Yes. Project 30 provides the best means of compliance with discharge and water quality regulations. Mr. Schram's testimony provides details associated with the economics of this project.

Project 31 -- Trimble County Station
Ash Treatment Basin and Gypsum Storage Pond

Q. Please describe the Trimble County Station Ash Treatment Basin and Gypsum Storage Pond (Project 31), the anticipated cost and the associated timeline.

A. The primary CCP managed at the Trimble County station are bottom ash, fly ash and gypsum, all of which are currently managed either through treatment in the 85 acre

EXHIBIT D

Revenue Requirments Summary
Gypsum Disposal at Sterling Materials

			2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Revenue Requirement													
Eligible Plant			$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 203,254,220	$ 203,969,979	$ 203,969,979	$ 248,969,979
Less Gypsum Plant			$ -	$ (14,090,000)	$ (40,060,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (98,110,000)
Revised Eligible Plant			$ 4,321,671	$ 32,388,846	$ 65,425,803	$ 124,467,356	$ 138,023,918	$ 148,831,953	$ 149,468,976	$ 150,144,220	$ 150,859,979	$ 150,859,979	$ 150,859,979
Less Accumulated Depreciation							$ (3,690,414)	$ (7,842,826)	$ (12,013,010)	$ (16,202,034)	$ (20,411,027)	$ (24,620,020)	$ (28,829,013)
Less Deferred Tax Balance							$ (528,683)	$ (2,857,926)	$ (4,921,730)	$ (6,731,945)	$ (8,301,165)	$ (9,641,200)	$ (11,289,441)
Environmental Compliance Rate Base			$ 4,321,671	$ 32,388,846	$ 65,425,803	$ 124,467,356	$ 133,804,821	$ 138,131,202	$ 132,534,236	$ 127,210,241	$ 122,147,788	$ 116,598,759	$ 110,741,525
Rate of Return			11.1%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
Assumed Tons (1.155)	1,000,000		$ 480,509	$ 3,553,056	$ 7,177,211	$ 13,654,069	$ 14,678,389	$ 15,152,993	$ 14,539,006	$ 13,954,963	$ 13,399,612	$ 12,790,884	$ 12,148,345
86.7500% Cubic yards	867,500												
Operating Expenses			$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,556
less Gypsum to On-site Landfill							$ (8,887,032)	$ (9,420,254)	$ (9,985,469)	$ (10,584,598)	$ (11,219,674)	$ (11,892,854)	$ (12,606,425)
Gypsum to Sterling	**$ 10.50**						$ 10,500,000	$ 11,130,000	$ 11,797,800	$ 12,505,668	$ 13,256,008	$ 14,051,369	$ 14,894,451
Net Operating			$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 20,616,276	$ 21,853,253	$ 23,164,448	$ 24,554,314	$ 26,027,573	$ 27,589,228	$ 29,244,581
Annual Depreciation							$ 3,690,414	$ 4,152,411	$ 4,170,184	$ 4,189,024	$ 4,208,993	$ 4,208,993	$ 4,208,993
Annual Property Tax Expense				$ 6,483	$ 69,718	$ 158,229	$ 266,366	$ 279,017	$ 286,798	$ 279,274	$ 271,751	$ 264,317	$ 264,317
Total OE			$ 84,800	$ 127,832	$ 198,348	$ 294,577	$ 24,573,056	$ 26,284,681	$ 27,621,430	$ 29,022,612	$ 30,508,317	$ 32,062,537	$ 33,717,891
Total E(m) Gypsum to Sterling		$ 476,298,826	$ 565,309	$ 3,680,888	$ 7,375,559	$ 13,948,646	$ 39,251,445	$ 41,437,674	$ 42,160,436	$ 42,977,575	$ 43,907,929	$ 44,853,421	$ 45,866,236
Total E(m) - Project 30 (See below)		$ 555,782,375	$ 565,309	$ 5,226,225	$ 11,769,378	$ 19,773,528	$ 44,705,239	$ 46,600,208	$ 46,976,843	$ 47,458,553	$ 48,044,547	$ 48,653,648	$ 55,312,476
Difference **PVRR**	**7.81%**	**$ (79,483,549)**	$ -	$ (1,545,337)	$ (4,393,819)	$ (5,824,882)	$ (5,453,794)	$ (5,162,534)	$ (4,816,407)	$ (4,480,978)	$ (4,136,618)	$ (3,800,227)	$ (9,446,240)
Date			12/31/2009	12/31/2010	12/31/2011	12/31/2012	12/31/2013	12/31/2014	12/31/2015	12/31/2016	12/31/2017	12/31/2018	12/31/2019

Revenue Requirments Summary
2009 Amended Plan
Project 30 Ghent Landfill Phase I
See Exhibit B

			2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
													Start Phase II
Revenue Requirement													$ 40,000,000
Eligible Plant			$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 203,254,220	$ 203,969,979	$ 203,969,979	$ 248,969,979
Less Gypsum Plant			$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Revised Eligible Plant			$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 203,254,220	$ 203,969,979	$ 203,969,979	$ 248,969,979
Less Accumulated Depreciation							$ (5,110,443)	$ (10,744,623)	$ (16,396,576)	$ (22,067,369)	$ (27,758,131)	$ (33,448,893)	$ (40,395,155)
Less Deferred Tax Balance							$ (732,114)	$ (3,915,341)	$ (6,717,677)	$ (9,168,992)	$ (11,289,232)	$ (13,098,586)	$ (15,818,743)
Environmental Compliance Rate Base			$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 185,291,361	$ 187,281,989	$ 179,464,723	$ 172,017,859	$ 164,922,616	$ 157,422,500	$ 192,756,081
Rate of Return			11.1%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
			$ 480,509	$ 5,098,729	$ 11,571,793	$ 19,480,236	$ 20,326,462	$ 20,544,834	$ 19,687,280	$ 18,870,359	$ 18,092,011	$ 17,269,248	$ 21,145,342
Operating Expenses			$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,555.78
less Gypsum to On-site Landfill							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Gypsum to Sterling							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Net Operating			$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,556
Annual Depreciation							$ 5,110,443	$ 5,634,180	$ 5,651,953	$ 5,670,793	$ 5,690,762	$ 5,690,762	$ 6,946,262
Annual Property Tax Expense				$ 6,483	$ 69,718	$ 158,229	$ 266,366	$ 279,017	$ 286,798	$ 279,274	$ 271,751	$ 264,317	$ 264,317
Total OE			$ 84,800	$ 127,832	$ 198,348	$ 294,577	$ 24,380,117	$ 26,056,704	$ 27,290,868	$ 28,583,311	$ 29,953,752	$ 31,385,792	$ 34,167,134
Total E(m) Gypsum to On-site Landfill as Calculated			$ 565,309	$ 5,226,561	$ 11,770,141	$ 19,774,813	$ 44,706,579	$ 46,601,539	$ 46,978,148	$ 47,453,670	$ 48,045,763	$ 48,655,040	$ 55,312,476
Total E(m) Gypsum to On-site Landfill per KU			$ 565,309	$ 5,226,225	$ 11,769,378	$ 19,773,528	$ 44,705,239	$ 46,600,208	$ 46,976,843	$ 47,458,553	$ 48,044,547	$ 48,653,648	
Calculation Check Difference			$ -	$ 336	$ 763	$ 1,285	$ 1,340	$ 1,331	$ 1,305	$ (4,883)	$ 1,216	$ 1,392	
Site E/F Hauling cost of Ash 2.25 mile round trip							$ 2,822,723	$ 2,992,086	$ 3,171,612	$ 3,361,908	$ 3,563,623	$ 3,777,440	$ 4,004,087
Haul Road Maintenance							$ 53,529	$ 56,741	$ 60,145	$ 63,754	$ 67,579	$ 71,634	$ 75,932
Total							$ 2,876,252	$ 3,048,827	$ 3,231,757	$ 3,425,662	$ 3,631,202	$ 3,849,074	$ 4,080,018
Reduce by 50% for Site M			$ -	$ -	$ -	$ -	$ 1,438,126	$ 1,524,414	$ 1,615,878	$ 1,712,831	$ 1,815,601	$ 1,924,537	$ 2,040,009
Difference **PVRR**	**7.81%**	**$ (21,865,903)**											

Revenue Requirments Summary
Gypsum Disposal at Sterling Materials

				2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
														Start Phase II
Revenue Requirement														$ 40,000,000
Eligible Plant				$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 323,969,979	$ 353,969,979	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
Less Gypsum Plant				$ (133,110,000)	$ (133,110,000)	$ (133,110,000)	$ (133,110,000)	$ (133,110,000)	$ (173,110,000)	$ (203,110,000)	$ (209,140,021)	$ (209,140,021)	$ (209,140,021)	$ (169,140,021)
Revised Eligible Plant				$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 190,859,979
Less Accumulated Depreciation				$ (33,038,006)	$ (37,246,999)	$ (41,455,992)	$ (45,664,985)	$ (49,873,978)	$ (54,082,972)	$ (58,291,965)	$ (62,500,958)	$ (66,709,951)	$ (70,918,944)	$ (76,243,937)
Less Deferred Tax Balance				$ (12,937,683)	$ (14,585,925)	$ (16,234,167)	$ (17,882,408)	$ (19,530,650)	$ (21,178,892)	$ (22,827,133)	$ (24,475,375)	$ (26,123,617)	$ (27,771,858)	$ (29,857,126)
Environmental Compliance Rate Base				$ 104,884,290	$ 99,027,055	$ 93,169,820	$ 87,312,585	$ 81,455,351	$ 75,598,116	$ 69,740,881	$ 63,883,646	$ 58,026,411	$ 52,169,177	$ 84,758,916
Rate of Return				10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
Assumed	Tons (1.155)	1,000,000		$ 11,505,807	$ 10,863,268	$ 10,220,729	$ 9,578,191	$ 8,935,652	$ 8,293,113	$ 7,650,575	$ 7,008,036	$ 6,365,497	$ 5,722,959	$ 9,298,053
86.7500%	Cubic yards	867,500												
Operating Expenses				$ 28,573,949	$ 30,288,386	$ 32,105,689	$ 34,032,031	$ 36,073,952	$ 38,238,390	$ 40,532,693	$ 42,964,655	$ 45,542,534	$ 48,275,086	$ 51,171,591
less Gypsum to On-site Landfill				$ (13,362,811)	$ (14,164,579)	$ (15,014,454)	$ (15,915,321)	$ (16,870,241)	$ (17,882,455)	$ (18,955,402)	$ (20,092,727)	$ (21,298,290)	$ (22,576,188)	$ (23,930,759)
Gypsum to Sterling	**$**	**10.50**		$ 15,788,118	$ 16,735,405	$ 17,739,529	$ 18,803,901	$ 19,932,135	$ 21,128,063	$ 22,395,747	$ 23,739,492	$ 25,163,861	$ 26,673,693	$ 28,274,114
Net Operating				$ 30,999,256	$ 32,859,211	$ 34,830,764	$ 36,920,610	$ 39,135,847	$ 41,483,997	$ 43,973,037	$ 46,611,419	$ 49,408,105	$ 52,372,591	$ 55,514,946
Annual Depreciation				$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 5,324,993
Annual Property Tax Expense				$ 322,630	$ 367,985	$ 367,985	$ 367,985	$ 367,985	$ 367,985	$ 419,820	$ 458,696	$ 466,510	$ 466,510	$ 466,510
Total OE				$ 35,530,879	$ 37,436,190	$ 39,407,743	$ 41,497,588	$ 43,712,825	$ 46,060,976	$ 48,601,850	$ 51,279,108	$ 54,083,607	$ 57,048,094	$ 61,306,449
Total E(m) Gypsum to Sterling			$ 476,298,826	$ 47,036,686	$ 48,299,458	$ 49,628,472	$ 51,075,779	$ 52,648,477	$ 54,354,089	$ 56,252,425	$ 58,287,144	$ 60,449,105	$ 62,771,052	$ 70,604,502
Total E(m) - Project 30 (See below)			$ 555,782,375	$ 60,594,706	$ 61,145,021	$ 61,752,847	$ 62,469,712	$ 63,302,156	$ 69,590,749	$ 74,557,268	$ 76,324,534	$ 77,376,925	$ 78,576,175	$ 79,939,378
Difference	**PVRR**	**7.81%**	**$ (79,483,549)**	$ (13,558,020)	$ (12,845,563)	$ (12,124,375)	$ (11,393,932)	$ (10,653,679)	$ (15,236,660)	$ (18,304,843)	$ (18,037,390)	$ (16,927,821)	$ (15,805,123)	$ (9,334,876)
Date				12/31/2020	12/31/2021	12/31/2022	12/31/2023	12/31/2024	12/31/2025	12/31/2026	12/31/2027	12/31/2028	12/31/2029	12/31/2030

Revenue Requirments Summary
2009 Amended Plan
Project 30 Ghent Landfill Phase I
See Exhibit B

				2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
									Start Phase III					
Revenue Requirement				$ 40,000,000					$ 40,000,000	$ 30,000,000	$ 6,030,021			
Eligible Plant				$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 323,969,979	$ 353,969,979	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
Less Gypsum Plant				$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Revised Eligible Plant				$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 323,969,979	$ 353,969,979	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
Less Accumulated Depreciation				$ (48,317,917)	$ (56,240,679)	$ (64,163,440)	$ (72,086,202)	$ (80,008,964)	$ (89,047,726)	$ (98,923,488)	$ (108,967,487)	$ (119,011,486)	$ (129,055,485)	$ (139,099,485)
Less Deferred Tax Balance				$ (18,921,296)	$ (22,023,850)	$ (25,126,403)	$ (28,228,957)	$ (31,331,510)	$ (34,871,089)	$ (38,738,438)	$ (42,671,668)	$ (46,604,898)	$ (50,538,128)	$ (54,471,358)
Environmental Compliance Rate Base				$ 216,730,766	$ 205,705,451	$ 194,680,135	$ 183,654,820	$ 172,629,505	$ 200,051,164	$ 216,308,054	$ 208,360,845	$ 194,383,616	$ 180,406,387	$ 166,429,157
Rate of Return				10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
				$ 23,775,365	$ 22,565,888	$ 21,356,411	$ 20,146,934	$ 18,937,457	$ 21,945,613	$ 23,728,993	$ 22,857,185	$ 21,323,883	$ 19,790,581	$ 18,257,279
Operating Expenses				$ 28,573,949.13	$ 30,288,386.07	$ 32,105,689.24	$ 34,032,030.59	$ 36,073,952.43	$ 38,238,389.57	$ 40,532,692.95	$ 42,964,654.53	$ 45,542,533.80	$ 48,275,085.83	$ 51,171,590.97
less Gypsum to On-site Landfill				$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Gypsum to Sterling				$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Net Operating				$ 28,573,949	$ 30,288,386	$ 32,105,689	$ 34,032,031	$ 36,073,952	$ 38,238,390	$ 40,532,693	$ 42,964,655	$ 45,542,534	$ 48,275,086	$ 51,171,591
Annual Depreciation				$ 7,922,762	$ 7,922,762	$ 7,922,762	$ 7,922,762	$ 7,922,762	$ 9,038,762	$ 9,875,762	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999
Annual Property Tax Expense				$ 322,630	$ 367,985	$ 367,985	$ 367,985	$ 367,985	$ 367,985	$ 419,820	$ 458,696	$ 466,510	$ 466,510	$ 466,510
Total OE				$ 36,819,341	$ 38,579,133	$ 40,396,436	$ 42,322,778	$ 44,364,700	$ 47,645,137	$ 50,828,274	$ 53,467,349	$ 56,053,043	$ 58,785,595	$ 61,682,100
Total E(m) Gypsum to On-site Landfill as Calculated				$ 60,594,706	$ 61,145,021	$ 61,752,847	$ 62,469,712	$ 63,302,156	$ 69,590,749	$ 74,557,268	$ 76,324,534	$ 77,376,925	$ 78,576,175	$ 79,939,378
Total E(m) Gypsum to On-site Landfill per KU														
Calculation Check Difference														
Site E/F	Hauling cost of Ash 2.25 mile round trip			$ 4,244,332	$ 4,498,992	$ 4,768,931	$ 5,055,067	$ 5,358,371	$ 5,679,873	$ 6,020,666	$ 6,381,906	$ 6,764,820	$ 7,170,709	$ 7,600,952
	Haul Road Maintenance			$ 80,488	$ 85,317	$ 90,436	$ 95,862	$ 101,614	$ 107,711	$ 114,174	$ 121,024	$ 128,285	$ 135,982	$ 144,141
Total				$ 4,324,820	$ 4,584,309	$ 4,859,367	$ 5,150,929	$ 5,459,985	$ 5,787,584	$ 6,134,839	$ 6,502,930	$ 6,893,105	$ 7,306,692	$ 7,745,093
Reduce by 50% for Site M				$ 2,162,410	$ 2,292,154	$ 2,429,684	$ 2,575,465	$ 2,729,993	$ 2,893,792	$ 3,067,420	$ 3,251,465	$ 3,446,553	$ 3,653,346	$ 3,872,547
Difference	**PVRR**	**7.81%**	**$ (21,865,903)**											

Revenue Requirments Summary
Gypsum Disposal at Sterling Materials

			2031	2032	2033	2034	2035	2036	2037	
Revenue Requirement			$ 40,000,000							
Eligible Plant			$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	
Less Gypsum Plant			$ (129,140,021)	$ (129,140,021)	$ (129,140,021)	$ (129,140,021)	$ (129,140,021)	$ (129,140,021)	$ (129,140,021)	
Revised Eligible Plant			$ 230,859,979	$ 230,859,979	$ 230,859,979	$ 230,859,979	$ 230,859,979	$ 230,859,979	$ 230,859,979	
Less Accumulated Depreciation			$ (82,684,930)	$ (89,125,923)	$ (95,566,916)	$ (102,007,909)	$ (108,448,902)	$ (114,889,895)	$ (121,330,888)	
Less Deferred Tax Balance			$ (32,379,419)	$ (34,901,711)	$ (37,424,004)	$ (39,946,297)	$ (42,468,590)	$ (44,990,883)	$ (47,513,176)	
Environmental Compliance Rate Base			$ 115,795,631	$ 106,832,345	$ 97,869,059	$ 88,905,773	$ 79,942,487	$ 70,979,202	$ 62,015,916	
Rate of Return			10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	
Assumed	Tons (1.155)	1,000,000	$ 12,702,781	$ 11,719,508	$ 10,736,236	$ 9,752,963	$ 8,769,691	$ 7,786,418	$ 6,803,146	
86.7500%	Cubic yards	867,500								
Operating Expenses			$ 54,241,886	$ 57,496,400	$ 60,946,184	$ 64,602,955	$ 68,479,132	$ 72,587,880	$ 76,943,153	
less Gypsum to On-site Landfill			$ (25,366,604)	$ (26,888,601)	$ (28,501,917)	$ (30,212,032)	$ (32,024,754)	$ (33,946,239)	$ (35,983,013)	
Gypsum to Sterling		**$ 10.50**	$ 29,970,561	$ 31,768,795	$ 33,674,922	$ 35,695,418	$ 37,837,143	$ 40,107,371	$ 42,513,814	
Net Operating			$ 58,845,843	$ 62,376,594	$ 66,119,189	$ 70,086,341	$ 74,291,521	$ 78,749,012	$ 83,473,953	
Annual Depreciation			$ 6,440,993	$ 6,440,993	$ 6,440,993	$ 6,440,993	$ 6,440,993	$ 6,440,993	$ 6,440,993	
Annual Property Tax Expense			$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	
Total OE			$ 65,753,346	$ 69,284,096	$ 73,026,692	$ 76,993,843	$ 81,199,024	$ 85,656,515	$ 90,381,456	
Total E(m) Gypsum to Sterling		$ 476,298,826	$ 78,456,126	$ 81,003,604	$ 83,762,928	$ 86,746,807	$ 89,968,715	$ 93,442,933	$ 97,184,602	$ 1,547,998,022
Total E(m) - Project 30 (See below)		$ 555,782,375	$ 81,476,372	$ 83,197,583	$ 85,114,065	$ 87,237,534	$ 89,580,409	$ 92,155,855	$ 94,977,826	$ 1,754,455,070
Difference	**PVRR**	**7.81% $ (79,483,549)**	$ (3,020,245)	$ (2,193,978)	$ (1,351,137)	$ (490,727)	$ 388,306	$ 1,287,079	$ 2,206,776	$ (206,457,048)
Date			12/31/2031	12/31/2032	12/31/2033	12/31/2034	12/31/2035	12/31/2036	12/31/2037	
										$ (206,457,048)

Revenue Requirments Summary
2009 Amended Plan
Project 30 Ghent Landfill Phase I
See Exhibit B

			2031	2032	2033	2034	2035	2036	2037
Revenue Requirement									
Eligible Plant			$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
Less Gypsum Plant			$ -	$ -	$ -	$ -	$ -	$ -	$ -
Revised Eligible Plant			$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
Less Accumulated Depreciation			$ (149,143,484)	$ (159,187,483)	$ (169,231,482)	$ (179,275,482)	$ (189,319,481)	$ (199,363,480)	$ (209,407,479)
Less Deferred Tax Balance			$ (58,404,588)	$ (62,337,818)	$ (66,271,048)	$ (70,204,279)	$ (74,137,509)	$ (78,070,739)	$ (82,003,969)
Environmental Compliance Rate Base			$ 152,451,928	$ 138,474,699	$ 124,497,469	$ 110,520,240	$ 96,543,010	$ 82,565,781	$ 68,588,552
Rate of Return			10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
			$ 16,723,976	$ 15,190,674	$ 13,657,372	$ 12,124,070	$ 10,590,768	$ 9,057,466	$ 7,524,164
Operating Expenses			$ 54,241,886.43	$ 57,496,399.62	$ 60,946,183.60	$ 64,602,954.61	$ 68,479,131.89	$ 72,587,879.80	$ 76,943,152.59
less Gypsum to On-site Landfill			$ -	$ -	$ -	$ -	$ -	$ -	$ -
Gypsum to Sterling			$ -	$ -	$ -	$ -	$ -	$ -	$ -
Net Operating			$ 54,241,886	$ 57,496,400	$ 60,946,184	$ 64,602,955	$ 68,479,132	$ 72,587,880	$ 76,943,153
Annual Depreciation			$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999
Annual Property Tax Expense			$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510
Total OE			$ 64,752,395	$ 68,006,908	$ 71,456,692	$ 75,113,463	$ 78,989,641	$ 83,098,389	$ 87,453,661
Total E(m) Gypsum to On-site Landfill as Calculated			$ 81,476,372	$ 83,197,583	$ 85,114,065	$ 87,237,534	$ 89,580,409	$ 92,155,855	$ 94,977,826
Total E(m) Gypsum to On-site Landfill per KU									
Calculation Check Difference									
Site E/F	Hauling cost of Ash 2.25 mile round trip		$ 8,057,009	$ 8,540,429	$ 9,052,855	$ 9,596,026	$ 10,171,788	$ 10,782,095	$ 11,429,021
	Haul Road Maintenance		$ 152,790	$ 161,957	$ 171,675	$ 181,975	$ 192,894	$ 204,467	$ 216,735
Total			$ 8,209,799	$ 8,702,387	$ 9,224,530	$ 9,778,002	$ 10,364,682	$ 10,986,563	$ 11,645,756
Reduce by 50% for Site M			$ 4,104,899	$ 4,351,193	$ 4,612,265	$ 4,889,001	$ 5,182,341	$ 5,493,281	$ 5,822,878
Difference	**PVRR**	**7.81% $ (21,865,903)**							

EXHIBIT E

GHENT LANDFILL (PHASE I)

Operating & Maintenance Costs ($)	2010	2011	2012	2013	2014	2015	2016	2017
Ground Water Sampling and Testing	14,045	14,888	15,781	16,728	17,731	18,795	19,923	21,118
Leachate Management	-	-	-	83,639	88,657	93,977	99,616	105,592
Surveying (As-builts)	16,292	17,270	18,306	19,404	20,569	21,803	23,111	24,497
Pump House Fly Ash and Bottom Ash Segregation	75,843	80,394	85,217	-	-	-	-	-
Dry Ash/Pyrites Handling System - Conveyor	-	-	-	2,161,234	2,290,908	2,428,363	2,574,065	2,728,509
Dry Gypsum Handling System	-	-	-	682,495	723,445	766,851	812,863	861,634
Leachate Pump House	15,169	16,079	17,043	18,066	19,150	20,299	21,517	22,808
Hauling Fly Ash and Bottom Ash to Landfill								
Loading	-	-	-	1,338,226	1,418,519	1,503,630	1,593,848	1,689,479
Phase 1 - 2.25 Mile Round Trip	-	-	-	2,822,723	2,992,087	3,171,612	3,361,909	3,563,623
Hauling Gypsum to Landfill								
Loading	-	-	-	1,746,384	1,851,167	1,962,237	2,079,972	2,204,770
Phase 1 - 2.25 Mile Round Trip	-	-	-	3,997,156	4,236,986	4,491,205	4,760,677	5,046,318
Landfilling Fly Ash and Bottom Ash	-	-	-	2,408,806	2,553,334	2,706,534	2,868,927	3,041,062
Landfilling Gypsum	-	-	-	3,143,492	3,332,101	3,532,027	3,743,949	3,968,586
Ash/Gypsum Placement QA/QC	-	-	-	54,198	57,450	60,897	64,551	68,424
Maintenance								
Landfills	-	-	-	301,101	319,167	338,317	358,616	380,133
Haul Roads	-	-	-	53,529	56,741	60,145	63,754	67,579
Dust Control	-	-	-	156,126	165,494	175,424	185,949	197,106
TOTAL	**121,349**	**128,630**	**136,348**	**19,003,308**	**20,143,507**	**21,352,117**	**22,633,244**	**23,991,239**

EXHIBIT F

GHENT LANDFILL (PHASE I)

Capital Expenditures ($ million)	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Total
Property Acquisition											
Disposal Site(s)	-	-	4.66	-	-	-	-	-	-	-	**4.66**
Overhead Electric Line(s)	-	-	0.03	-	-	-	-	-	-	-	**0.03**
Buffer Zones	-	-	-	-	2.37	-	-	-	-	-	**2.37**
Higher End House Acquisition	-	-	1.40	-	-	-	-	-	-	-	**1.40**
Engineering, Permits and Fees, and Construction Documents	0.46	2.00	-	-	-	-	-	-	-	-	**2.46**
Stream and Wetland Mitigation	-	-	4.14	-	-	-	-	-	-	-	**4.14**
Ground Water Monitoring System	-	0.27	-	-	-	-	-	-	-	-	**0.27**
Transmission Line Relocation Design, Engineering, and Construction	-	-	-	-	0.82	-	-	-	-	-	**0.82**
CCWD Relocation	-	-	0.12	-	-	-	-	-	-	-	**0.12**
Pump House Fly Ash and Bottom Ash Segregation	-	0.72	-	-	-	-	-	-	-	-	**0.72**
Dry Ash/Pyrites Handling System - Conveyor	-	-	16.29	27.08	38.93	-	-	-	-	-	**82.31**
Dry Gypsum Handling System	-	-	7.79	15.96	13.05	-	-	-	-	-	**36.80**
Gypsum Fines Project	-	0.74	6.30	6.30	-	-	-	-	-	-	**13.34**
Initial Site Preparation											
Clearing, Grubbing, and Site Preparation	-	-	-	0.62	0.65	0.69	-	-	-	-	**1.96**
Stripping and Stockpiling Soil	-	-	-	0.50	0.53	0.56	-	-	-	-	**1.58**
Hauling Topsoil - Phase 1 - 1.0 Mile Round Trip	-	-	-	0.19	0.20	0.21	-	-	-	-	**0.59**
Erosion and Sedimentation Controls	-	-	-	0.06	0.06	0.06	-	-	-	-	**0.18**
Sedimentation Pond	-	-	-	0.33	-	-	-	-	-	-	**0.33**
Collection Channels (Fabriform)	-	-	-	0.36	0.38	0.40	-	-	-	-	**1.15**
Diversion Channels (Riprap)	-	-	-	0.11	0.12	0.12	-	-	-	-	**0.35**
Liner Subgrade Preparation											
Scraping and Hauling - 0.25 Mile Round Trip	-	-	-	0.32	0.33	0.35	-	-	-	-	**1.01**
Excavating	-	-	-	0.15	0.16	0.17	-	-	-	-	**0.49**
Hauling Subgrade - Phase 1 - 1.0 Mile Round Trip	-	-	-	0.31	0.33	0.35	-	-	-	-	**0.99**
Spreading and Compacting Subgrade	-	-	-	0.49	0.52	0.55	-	-	-	-	**1.57**
Subgrade QA/QC	-	-	-	0.24	0.25	0.27	-	-	-	-	**0.76**
Gypsum Dewatering Facility Earthwork											
Excavating	-	-	-	0.73	-	-	-	-	-	-	**0.73**
Hauling Earth - 1.0 Mile Round Trip	-	-	-	1.53	-	-	-	-	-	-	**1.53**
Spreading and Compacting	-	-	-	1.21	-	-	-	-	-	-	**1.21**
Earthwork QA/QC	-	-	-	0.24	-	-	-	-	-	-	**0.24**

GHENT LANDFILL (PHASE I)

Capital Expenditures ($ million)	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Total
Haul Roads											
CCP Disposal On-Landfill Haul Road (60 Feet Wide)	-	-	-	-	0.61	0.05	0.05	0.05	0.05	0.06	**0.87**
CCP Disposal Off-Landfill Haul Road (60 Feet Wide)	-	-	-	0.30	1.03	-	-	-	-	-	**1.33**
Liner											
Landfill - Single Liner System	-	-	-	-	7.00	7.43	7.87	-	-	-	**22.30**
Liner System QA/QC	-	-	-	-	1.23	1.30	1.38	-	-	-	**3.90**
Leachate Collector Line	-	-	-	-	0.19	0.20	0.21	-	-	-	**0.60**
On-Landfill Leachate Trunk Line	-	-	-	-	0.08	0.08	0.09	-	-	-	**0.25**
Off-Landfill Leachate Trunk Line	-	-	-	-	0.07	-	-	-	-	-	**0.07**
Leachate Storage Pond	-	-	-	-	0.29	-	-	-	-	-	**0.29**
Leachate Pump House	-	-	-	-	0.09	-	-	-	-	-	**0.09**
Leachate Pipe Line	-	-	-	-	0.08	-	-	-	-	-	**0.08**
Underdrains - Trunk	-	-	-	-	0.17	0.18	0.19	-	-	-	**0.54**
Underdrains - Collector	-	-	-	-	0.11	0.12	0.12	-	-	-	**0.35**
Cap											
Intermediate Soil Cover	-	-	-	-	-	-	0.28	0.30	0.32	0.34	**1.24**
Cap System	-	-	-	-	-	-	0.22	0.23	0.25	0.26	**0.96**
Cap System QA/QC	-	-	-	-	-	-	0.03	0.03	0.03	0.03	**0.12**
Total	**0.46**	**3.72**	**40.73**	**57.01**	**69.65**	**13.10**	**10.44**	**0.62**	**0.65**	**0.69**	**197.07**
E.ON-US Overheads	0.02	0.13	1.43	2.00	2.44	0.46	0.37	0.02	0.02	0.02	**6.90**
Total with Overheads	**0.47**	**3.85**	**42.16**	**59.01**	**72.09**	**13.56**	**10.81**	**0.64**	**0.68**	**0.72**	**203.97**

EXHIBIT G

Revenue Requirments Summary
Gypsum Disposal at Sterling Materials

			2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Revenue Requirement													
Eligible Plant			$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 203,254,220	$ 203,969,979	$ 203,969,979	$ 248,969,979
Less Gypsum Plant			$ -	$ (14,090,000)	$ (40,060,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (98,110,000)
Revised Eligible Plant			$ 4,321,671	$ 32,388,846	$ 65,425,803	$ 124,467,356	$ 138,023,918	$ 148,831,953	$ 149,468,976	$ 150,144,220	$ 150,859,979	$ 150,859,979	$ 150,859,979
Less Accumulated Depreciation							$ (3,690,414)	$ (7,842,826)	$ (12,013,010)	$ (16,202,034)	$ (20,411,027)	$ (24,620,020)	$ (28,829,013)
Less Deferred Tax Balance							$ (528,683)	$ (2,857,926)	$ (4,921,730)	$ (6,731,945)	$ (8,301,165)	$ (9,641,200)	$ (11,289,441)
Environmental Compliance Rate Base			$ 4,321,671	$ 32,388,846	$ 65,425,803	$ 124,467,356	$ 133,804,821	$ 138,131,202	$ 132,534,236	$ 127,210,241	$ 122,147,788	$ 116,598,759	$ 110,741,525
Rate of Return			11.1%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
Assumed Tons (1.155)	1,000,000		$ 480,509	$ 3,553,056	$ 7,177,211	$ 13,654,069	$ 14,678,389	$ 15,152,993	$ 14,539,006	$ 13,954,963	$ 13,399,612	$ 12,790,884	$ 12,148,345
86.7500% Cubic yards	867,500												
Operating Expenses			$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,556
less Gypsum to On-site Landfill							$ (8,887,032)	$ (9,420,254)	$ (9,985,469)	$ (10,584,598)	$ (11,219,674)	$ (11,892,854)	$ (12,606,425)
Gypsum to Sterling	**$ 9.00**						$ 9,000,000	$ 9,540,000	$ 10,112,400	$ 10,719,144	$ 11,362,293	$ 12,044,030	$ 12,766,672
Net Operating			$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,116,276	$ 20,263,253	$ 21,479,048	$ 22,767,790	$ 24,133,858	$ 25,581,889	$ 27,116,803
Annual Depreciation							$ 3,690,414	$ 4,152,411	$ 4,170,184	$ 4,189,024	$ 4,208,993	$ 4,208,993	$ 4,208,993
Annual Property Tax Expense				$ 6,483	$ 69,718	$ 158,229	$ 266,366	$ 279,017	$ 286,798	$ 279,274	$ 271,751	$ 264,317	$ 264,317
Total OE			$ 84,800	$ 127,832	$ 198,348	$ 294,577	$ 23,073,056	$ 24,694,681	$ 25,936,030	$ 27,236,088	$ 28,614,602	$ 30,055,199	$ 31,590,112
Total E(m) Gypsum to Sterling		$ 453,492,164	$ 565,309	$ 3,680,888	$ 7,375,559	$ 13,948,646	$ 37,751,445	$ 39,847,674	$ 40,475,036	$ 41,191,051	$ 42,014,214	$ 42,846,083	$ 43,738,457
Total E(m) - Project 30 (See below)		$ 555,782,375	$ 565,309	$ 5,226,225	$ 11,769,378	$ 19,773,528	$ 44,705,239	$ 46,600,208	$ 46,976,843	$ 47,458,553	$ 48,044,547	$ 48,653,648	$ 55,312,476
Difference **PVRR**	**7.81%**	**$ (102,290,212)**	$ -	$ (1,545,337)	$ (4,393,819)	$ (5,824,882)	$ (6,953,794)	$ (6,752,534)	$ (6,501,807)	$ (6,267,502)	$ (6,030,333)	$ (5,807,565)	$ (11,574,019)
Date			12/31/2009	12/31/2010	12/31/2011	12/31/2012	12/31/2013	12/31/2014	12/31/2015	12/31/2016	12/31/2017	12/31/2018	12/31/2019

Revenue Requirments Summary
2009 Amended Plan
Project 30 Ghent Landfill Phase I
See Exhibit B

			2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
													Start Phase II
Revenue Requirement													$ 40,000,000
Eligible Plant			$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 203,254,220	$ 203,969,979	$ 203,969,979	$ 248,969,979
Less Gypsum Plant			$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Revised Eligible Plant			$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 203,254,220	$ 203,969,979	$ 203,969,979	$ 248,969,979
Less Accumulated Depreciation							$ (5,110,443)	$ (10,744,623)	$ (16,396,576)	$ (22,067,369)	$ (27,758,131)	$ (33,448,893)	$ (40,395,155)
Less Deferred Tax Balance							$ (732,114)	$ (3,915,341)	$ (6,717,677)	$ (9,168,992)	$ (11,289,232)	$ (13,098,586)	$ (15,818,743)
Environmental Compliance Rate Base			$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 185,291,361	$ 187,281,989	$ 179,464,723	$ 172,017,859	$ 164,922,616	$ 157,422,500	$ 192,756,081
Rate of Return			11.1%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
			$ 480,509	$ 5,098,729	$ 11,571,793	$ 19,480,236	$ 20,326,462	$ 20,544,834	$ 19,687,280	$ 18,870,359	$ 18,092,011	$ 17,269,248	$ 21,145,342
Operating Expenses			$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,555.78
less Gypsum to On-site Landfill							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Gypsum to Sterling							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Net Operating			$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,556
Annual Depreciation							$ 5,110,443	$ 5,634,180	$ 5,651,953	$ 5,670,793	$ 5,690,762	$ 5,690,762	$ 6,946,262
Annual Property Tax Expense				$ 6,483	$ 69,718	$ 158,229	$ 266,366	$ 279,017	$ 286,798	$ 279,274	$ 271,751	$ 264,317	$ 264,317
Total OE			$ 84,800	$ 127,832	$ 198,348	$ 294,577	$ 24,380,117	$ 26,056,704	$ 27,290,868	$ 28,583,311	$ 29,953,752	$ 31,385,792	$ 34,167,134
Total E(m) Gypsum to On-site Landfill as Calculated			$ 565,309	$ 5,226,561	$ 11,770,141	$ 19,774,813	$ 44,706,579	$ 46,601,539	$ 46,978,148	$ 47,453,670	$ 48,045,763	$ 48,655,040	$ 55,312,476
Total E(m) Gypsum to On-site Landfill per KU			$ 565,309	$ 5,226,225	$ 11,769,378	$ 19,773,528	$ 44,705,239	$ 46,600,208	$ 46,976,843	$ 47,458,553	$ 48,044,547	$ 48,653,648	
Calculation Check Difference			$ -	$ 336	$ 763	$ 1,285	$ 1,340	$ 1,331	$ 1,305	$ (4,883)	$ 1,216	$ 1,392	
Site E/F Hauling cost of Ash 2.25 mile round trip							$ 2,822,723	$ 2,992,086	$ 3,171,612	$ 3,361,908	$ 3,563,623	$ 3,777,440	$ 4,004,087
Haul Road Maintenance							$ 53,529	$ 56,741	$ 60,145	$ 63,754	$ 67,579	$ 71,634	$ 75,932
Total							$ 2,876,252	$ 3,048,827	$ 3,231,757	$ 3,425,662	$ 3,631,202	$ 3,849,074	$ 4,080,018
Reduce by 50% for Site M			$ -	$ -	$ -	$ -	$ 1,438,126	$ 1,524,414	$ 1,615,878	$ 1,712,831	$ 1,815,601	$ 1,924,537	$ 2,040,009
Difference **PVRR**	**7.81%**	**$ (21,865,903)**											

Revenue Requirments Summary
Gypsum Disposal at Sterling Materials

			2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
													Start Phase II
Revenue Requirement													$ 40,000,000
Eligible Plant			$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 323,969,979	$ 353,969,979	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
Less Gypsum Plant			$ (133,110,000)	$ (133,110,000)	$ (133,110,000)	$ (133,110,000)	$ (133,110,000)	$ (173,110,000)	$ (203,110,000)	$ (209,140,021)	$ (209,140,021)	$ (209,140,021)	$ (169,140,021)
Revised Eligible Plant			$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 190,859,979
Less Accumulated Depreciation			$ (33,038,006)	$ (37,246,999)	$ (41,455,992)	$ (45,664,985)	$ (49,873,978)	$ (54,082,972)	$ (58,291,965)	$ (62,500,958)	$ (66,709,951)	$ (70,918,944)	$ (76,243,937)
Less Deferred Tax Balance			$ (12,937,683)	$ (14,585,925)	$ (16,234,167)	$ (17,882,408)	$ (19,530,650)	$ (21,178,892)	$ (22,827,133)	$ (24,475,375)	$ (26,123,617)	$ (27,771,858)	$ (29,857,126)
Environmental Compliance Rate Base			$ 104,884,290	$ 99,027,055	$ 93,169,820	$ 87,312,585	$ 81,455,351	$ 75,598,116	$ 69,740,881	$ 63,883,646	$ 58,026,411	$ 52,169,177	$ 84,758,916
Rate of Return			10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
Assumed	Tons (1.155)	1,000,000	$ 11,505,807	$ 10,863,268	$ 10,220,729	$ 9,578,191	$ 8,935,652	$ 8,293,113	$ 7,650,575	$ 7,008,036	$ 6,365,497	$ 5,722,959	$ 9,298,053
86.7500%	Cubic yards	867,500											
Operating Expenses			$ 28,573,949	$ 30,288,386	$ 32,105,689	$ 34,032,031	$ 36,073,952	$ 38,238,390	$ 40,532,693	$ 42,964,655	$ 45,542,534	$ 48,275,086	$ 51,171,591
less Gypsum to On-site Landfill			$ (13,362,811)	$ (14,164,579)	$ (15,014,454)	$ (15,915,321)	$ (16,870,241)	$ (17,882,455)	$ (18,955,402)	$ (20,092,727)	$ (21,298,290)	$ (22,576,188)	$ (23,930,759)
Gypsum to Sterling	**$ 9.00**		$ 13,532,672	$ 14,344,633	$ 15,205,311	$ 16,117,629	$ 17,084,687	$ 18,109,768	$ 19,196,354	$ 20,348,136	$ 21,569,024	$ 22,863,165	$ 24,234,955
Net Operating			$ 28,743,811	$ 30,468,439	$ 32,296,546	$ 34,234,338	$ 36,288,399	$ 38,465,703	$ 40,773,645	$ 43,220,064	$ 45,813,267	$ 48,562,063	$ 51,475,787
Annual Depreciation			$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 5,324,993
Annual Property Tax Expense			$ 322,630	$ 367,985	$ 367,985	$ 367,985	$ 367,985	$ 367,985	$ 419,820	$ 458,696	$ 466,510	$ 466,510	$ 466,510
Total OE			$ 33,275,434	$ 35,045,418	$ 36,873,524	$ 38,811,317	$ 40,865,377	$ 43,042,681	$ 45,402,458	$ 47,887,752	$ 50,488,770	$ 53,237,566	$ 57,267,290
Total E(m) Gypsum to Sterling		$ 453,492,164	$ 44,781,241	$ 45,908,686	$ 47,094,253	$ 48,389,508	$ 49,801,029	$ 51,335,794	$ 53,053,032	$ 54,895,788	$ 56,854,267	$ 58,960,525	$ 66,565,343
Total E(m) - Project 30 (See below)		$ 555,782,375	$ 60,594,706	$ 61,145,021	$ 61,752,847	$ 62,469,712	$ 63,302,156	$ 69,590,749	$ 74,557,268	$ 76,324,534	$ 77,376,925	$ 78,576,175	$ 79,939,378
Difference	**PVRR**	**7.81% $ (102,290,212)**	$ (15,813,466)	$ (15,236,335)	$ (14,658,594)	$ (14,080,204)	$ (13,501,127)	$ (18,254,955)	$ (21,504,236)	$ (21,428,746)	$ (20,522,658)	$ (19,615,651)	$ (13,374,035)
Date			12/31/2020	12/31/2021	12/31/2022	12/31/2023	12/31/2024	12/31/2025	12/31/2026	12/31/2027	12/31/2028	12/31/2029	12/31/2030

Revenue Requirments Summary
2009 Amended Plan
Project 30 Ghent Landfill Phase I
See Exhibit B

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
						Start Phase III					
Revenue Requirement	$ 40,000,000					$ 40,000,000	$ 30,000,000	$ 6,030,021			
Eligible Plant	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 323,969,979	$ 353,969,979	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
Less Gypsum Plant	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Revised Eligible Plant	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 323,969,979	$ 353,969,979	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
Less Accumulated Depreciation	$ (48,317,917)	$ (56,240,679)	$ (64,163,440)	$ (72,086,202)	$ (80,008,964)	$ (89,047,726)	$ (98,923,488)	$ (108,967,487)	$ (119,011,486)	$ (129,055,485)	$ (139,099,485)
Less Deferred Tax Balance	$ (18,921,296)	$ (22,023,850)	$ (25,126,403)	$ (28,228,957)	$ (31,331,510)	$ (34,871,089)	$ (38,738,438)	$ (42,671,668)	$ (46,604,898)	$ (50,538,128)	$ (54,471,358)
Environmental Compliance Rate Base	$ 216,730,766	$ 205,705,451	$ 194,680,135	$ 183,654,820	$ 172,629,505	$ 200,051,164	$ 216,308,054	$ 208,360,845	$ 194,383,616	$ 180,406,387	$ 166,429,157
Rate of Return	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
	$ 23,775,365	$ 22,565,888	$ 21,356,411	$ 20,146,934	$ 18,937,457	$ 21,945,613	$ 23,728,993	$ 22,857,185	$ 21,323,883	$ 19,790,581	$ 18,257,279
Operating Expenses	$ 28,573,949.13	$ 30,288,386.07	$ 32,105,689.24	$ 34,032,030.59	$ 36,073,952.43	$ 38,238,389.57	$ 40,532,692.95	$ 42,964,654.53	$ 45,542,533.80	$ 48,275,085.83	$ 51,171,590.97
less Gypsum to On-site Landfill	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Gypsum to Sterling	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Net Operating	$ 28,573,949	$ 30,288,386	$ 32,105,689	$ 34,032,031	$ 36,073,952	$ 38,238,390	$ 40,532,693	$ 42,964,655	$ 45,542,534	$ 48,275,086	$ 51,171,591
Annual Depreciation	$ 7,922,762	$ 7,922,762	$ 7,922,762	$ 7,922,762	$ 7,922,762	$ 9,038,762	$ 9,875,762	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999
Annual Property Tax Expense	$ 322,630	$ 367,985	$ 367,985	$ 367,985	$ 367,985	$ 419,820	$ 458,696	$ 466,510	$ 466,510	$ 466,510	$ 466,510
Total OE	$ 36,819,341	$ 38,579,133	$ 40,396,436	$ 42,322,778	$ 44,364,700	$ 47,645,137	$ 50,828,274	$ 53,467,349	$ 56,053,043	$ 58,785,595	$ 61,682,100
Total E(m) Gypsum to On-site Landfill as Calculated	$ 60,594,706	$ 61,145,021	$ 61,752,847	$ 62,469,712	$ 63,302,156	$ 69,590,749	$ 74,557,268	$ 76,324,534	$ 77,376,925	$ 78,576,175	$ 79,939,378
Total E(m) Gypsum to On-site Landfill per KU											
Calculation Check Difference											
Site E/F Hauling cost of Ash 2.25 mile round trip	$ 4,244,332	$ 4,498,992	$ 4,768,931	$ 5,055,067	$ 5,358,371	$ 5,679,873	$ 6,020,666	$ 6,381,906	$ 6,764,820	$ 7,170,709	$ 7,600,952
Haul Road Maintenance	$ 80,488	$ 85,317	$ 90,436	$ 95,862	$ 101,614	$ 107,711	$ 114,174	$ 121,024	$ 128,285	$ 135,982	$ 144,141
Total	$ 4,324,820	$ 4,584,309	$ 4,859,367	$ 5,150,929	$ 5,459,985	$ 5,787,584	$ 6,134,839	$ 6,502,930	$ 6,893,105	$ 7,306,692	$ 7,745,093
Reduce by 50% for Site M	$ 2,162,410	$ 2,292,154	$ 2,429,684	$ 2,575,465	$ 2,729,993	$ 2,893,792	$ 3,067,420	$ 3,251,465	$ 3,446,553	$ 3,653,346	$ 3,872,547

Difference **PVRR** **7.81% $ (21,865,903)**

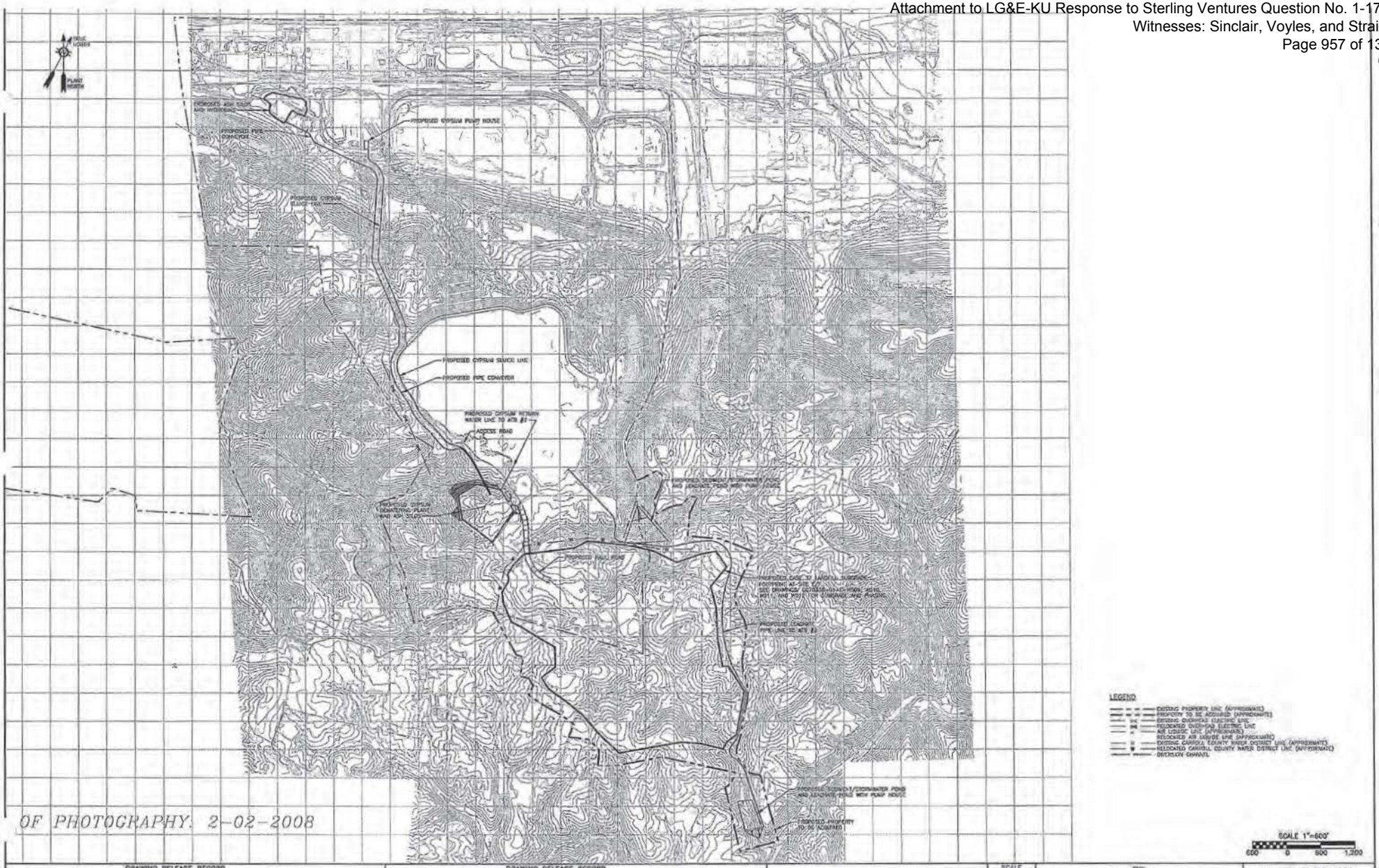
Revenue Requirments Summary
Gypsum Disposal at Sterling Materials

			2031	2032	2033	2034	2035	2036	2037	
Revenue Requirement			$ 40,000,000							
Eligible Plant			$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	
Less Gypsum Plant			$ (129,140,021)	$ (129,140,021)	$ (129,140,021)	$ (129,140,021)	$ (129,140,021)	$ (129,140,021)	$ (129,140,021)	
Revised Eligible Plant			$ 230,859,979	$ 230,859,979	$ 230,859,979	$ 230,859,979	$ 230,859,979	$ 230,859,979	$ 230,859,979	
Less Accumulated Depreciation			$ (82,684,930)	$ (89,125,923)	$ (95,566,916)	$ (102,007,909)	$ (108,448,902)	$ (114,889,895)	$ (121,330,888)	
Less Deferred Tax Balance			$ (32,379,419)	$ (34,901,711)	$ (37,424,004)	$ (39,946,297)	$ (42,468,590)	$ (44,990,883)	$ (47,513,176)	
Environmental Compliance Rate Base			$ 115,795,631	$ 106,832,345	$ 97,869,059	$ 88,905,773	$ 79,942,487	$ 70,979,202	$ 62,015,916	
Rate of Return			10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	
Assumed	Tons (1.155)	1,000,000	$ 12,702,781	$ 11,719,508	$ 10,736,236	$ 9,752,963	$ 8,769,691	$ 7,786,418	$ 6,803,146	
86.7500%	Cubic yards	867,500								
Operating Expenses			$ 54,241,886	$ 57,496,400	$ 60,946,184	$ 64,602,955	$ 68,479,132	$ 72,587,880	$ 76,943,153	
less Gypsum to On-site Landfill			$ (25,366,604)	$ (26,888,601)	$ (28,501,917)	$ (30,212,032)	$ (32,024,754)	$ (33,946,239)	$ (35,983,013)	
Gypsum to Sterling		**$ 9.00**	$ 25,689,052	$ 27,230,396	$ 28,864,219	$ 30,596,072	$ 32,431,837	$ 34,377,747	$ 36,440,412	
Net Operating			$ 54,564,334	$ 57,838,194	$ 61,308,486	$ 64,986,995	$ 68,886,215	$ 73,019,388	$ 77,400,551	
Annual Depreciation			$ 6,440,993	$ 6,440,993	$ 6,440,993	$ 6,440,993	$ 6,440,993	$ 6,440,993	$ 6,440,993	
Annual Property Tax Expense			$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	
Total OE			$ 61,471,837	$ 64,745,697	$ 68,215,989	$ 71,894,498	$ 75,793,718	$ 79,926,890	$ 84,308,054	
Total E(m) Gypsum to Sterling		$ 453,492,164	$ 74,174,618	$ 76,465,205	$ 78,952,224	$ 81,647,461	$ 84,563,408	$ 87,713,309	$ 91,111,200	$ 1,465,701,254
Total E(m) - Project 30 (See below)		$ 555,782,375	$ 81,476,372	$ 83,197,583	$ 85,114,065	$ 87,237,534	$ 89,580,409	$ 92,155,855	$ 94,977,826	$ 1,754,455,070
Difference	**PVRR**	**7.81% $ (102,290,212)**	$ (7,301,754)	$ (6,732,378)	$ (6,161,840)	$ (5,590,073)	$ (5,017,001)	$ (4,442,546)	$ (3,866,626)	$ (288,753,816)
Date			12/31/2031	12/31/2032	12/31/2033	12/31/2034	12/31/2035	12/31/2036	12/31/2037	
										$ (288,753,816)

Revenue Requirments Summary
2009 Amended Plan
Project 30 Ghent Landfill Phase I
See Exhibit B

			2031	2032	2033	2034	2035	2036	2037
Revenue Requirement									
Eligible Plant			$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
Less Gypsum Plant			$ -	$ -	$ -	$ -	$ -	$ -	$ -
Revised Eligible Plant			$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
Less Accumulated Depreciation			$ (149,143,484)	$ (159,187,483)	$ (169,231,482)	$ (179,275,482)	$ (189,319,481)	$ (199,363,480)	$ (209,407,479)
Less Deferred Tax Balance			$ (58,404,588)	$ (62,337,818)	$ (66,271,048)	$ (70,204,279)	$ (74,137,509)	$ (78,070,739)	$ (82,003,969)
Environmental Compliance Rate Base			$ 152,451,928	$ 138,474,699	$ 124,497,469	$ 110,520,240	$ 96,543,010	$ 82,565,781	$ 68,588,552
Rate of Return			10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
			$ 16,723,976	$ 15,190,674	$ 13,657,372	$ 12,124,070	$ 10,590,768	$ 9,057,466	$ 7,524,164
Operating Expenses			$ 54,241,886.43	$ 57,496,399.62	$ 60,946,183.60	$ 64,602,954.61	$ 68,479,131.89	$ 72,587,879.80	$ 76,943,152.59
less Gypsum to On-site Landfill			$ -	$ -	$ -	$ -	$ -	$ -	$ -
Gypsum to Sterling			$ -	$ -	$ -	$ -	$ -	$ -	$ -
Net Operating			$ 54,241,886	$ 57,496,400	$ 60,946,184	$ 64,602,955	$ 68,479,132	$ 72,587,880	$ 76,943,153
Annual Depreciation			$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999
Annual Property Tax Expense			$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510
Total OE			$ 64,752,395	$ 68,006,908	$ 71,456,692	$ 75,113,463	$ 78,989,641	$ 83,098,389	$ 87,453,661
Total E(m) Gypsum to On-site Landfill as Calculated			$ 81,476,372	$ 83,197,583	$ 85,114,065	$ 87,237,534	$ 89,580,409	$ 92,155,855	$ 94,977,826
Total E(m) Gypsum to On-site Landfill per KU									
Calculation Check Difference									
Site E/F	Hauling cost of Ash 2.25 mile round trip		$ 8,057,009	$ 8,540,429	$ 9,052,855	$ 9,596,026	$ 10,171,788	$ 10,782,095	$ 11,429,021
	Haul Road Maintenance		$ 152,790	$ 161,957	$ 171,675	$ 181,975	$ 192,894	$ 204,467	$ 216,735
Total			$ 8,209,799	$ 8,702,387	$ 9,224,530	$ 9,778,002	$ 10,364,682	$ 10,986,563	$ 11,645,756
Reduce by 50% for Site M			$ 4,104,899	$ 4,351,193	$ 4,612,265	$ 4,889,001	$ 5,182,341	$ 5,493,281	$ 5,822,878
Difference	**PVRR**	**7.81% $ (21,865,903)**							

EXHIBIT H



OF PHOTOGRAPHY: 2-02-2008

DRAWING RELEASE RECORD					DRAWING RELEASE RECORD				
REV.	DATE	PREPARED	APPROVED	PURPOSE	REV.	DATE	PREPARED	APPROVED	PURPOSE
A		JPC		Original Drawing Release					

DRAWN: TSH
CHECKED:
DATE:
DASH NO. 001
PROJECT NO./DASH NO. 0070338-01
DRAWING NO. W040

SCALE 1"=600'
PROJECT NUMBER

TSH
ASH POND AND LANDFILL PROJECT
FINAL CONCEPTUAL DESIGN
CASE 37 - OVERVIEW

Kentucky Utilities Company
an E-ON company

From: Smith, Timothy (Trimble)(/O=LGE/OU=LOUISVILLE/CN=RECIPIENTS/CN=E008722)
To: Guelda, Thomas
CC:
BCC:
Subject: FW: Ghent Gyspum Disposal
Sent: 02/23/2012 03:23:15 PM -0500 (EST)
Attachments: LGE - KU Sterling Materials.pdf;

FYI

From: John Walters [mailto:johnwalters@sterlingventures.com]
Sent: Monday, October 10, 2011 1:36 PM
To: Smith, Timothy
Cc: Joyce, Jeff; Pfeiffer, Caryl; Tapp Sr., Kenny (Electric); Gilbert, Bill G.; Dotson, Mike; Puckett, Paul
Subject: RE: Ghent Gyspum Disposal

Tim

I just found out that you have moved over to the Trimble plant. It was my understanding that meetings were being set up at LG&E to discuss the attached the week of September 19th and /or the week of September 26th. Do you know the status of the discussion on Gypsum storage, and who is taking over for you regarding this at Ghent?

Thanks

John

From: John Walters
Sent: Tuesday, September 13, 2011 5:15 PM
To: timothy.smith@lge-ku.com; 'jeff.joyce@lge-ku.com'; 'caryl.pfeiffer@lge-ku.com'; 'kenny.tapp@lge-ku.com'; 'bill.gilbert@lge-ku.com'; 'mike.dotson@lge-ku.com'; 'paul.puckett@lge-ku.com'
Cc: Alex Boone
Subject: Ghent Gyspum Disposal

Please see attached

John W. Walters, Jr.
Sterling Ventures, LLC
376 South Broadway
Lexington, KY 40508
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STERLING
VENTURES

September 13, 2011

Mr. Jeff Joyce
Mr. Timothy Smith
LG&E and KU-Ghent Station
9485 HWY 42 East
Ghent, KY 41045

Ms. Caryl Pfeiffer VIA E-mail
Mr. Kenny Tapp
Mr. Mike Dotson
Mr. Bill Gilbert
Mr. Paul Puckett
LG&E and KU
220 West Main Street
P.O. Box 32010
Louisville, KY 40202

Re: FGD Gypsum Disposal - Ghent Generating Station

Dear Ms. Pfeiffer and Gentlemen:

We have recently met with Tim Smith at Ghent Station to renew discussions concerning the possibility of Sterling Materials disposing of excess FGD Gypsum from the gypsum stacking facility at the Ghent Generating Station. We were unable to reach an agreement last year on gypsum disposal, presumably based on our proposed pricing.

Our pricing was in part based upon a requirement for a minimum tonnage of gypsum in order to cover the cost of Sterling having to install a gypsum access shaft to access our underground mine. The gypsum access shaft is preferable to trucking the gypsum underground, which we considered cost prohibitive. We proposed to Tim that if Ghent was interested in paying for the cost of the gypsum access shaft (which we estimated to be approximately $650,000) we would be willing to enter into an agreement that would give Ghent the right to dispose of its stacking pond gypsum in Sterling's mine. LGE/KU would be responsible for all loading and trucking fees. Sterling's charge in this scenario would be $5.50 per ton, subject to the terms of a final agreement. The $5.50 would be reduced by $1.00 for a period of 18 months in order to encourage early gypsum disposal, and allow you to recoup the cost of the gypsum access shaft.

As we discussed last year, Sterling is interested in not only handling the initial 1,500,000 tons of gypsum from the stacking facility, but also in receiving 100% of Ghent's excess FGD

gypsum for the life of the power plant. Attached is a comparative analysis of the PVRR cost difference between your current plan of placing all CCP's in a new landfill, and placing all gypsum at Sterling, with only ash going into your new landfill. The attached comparative analysis is based upon the capital construction cost and O&M cost you provided to the Kentucky Public Service Commission. Our attached analysis indicates that disposal of gypsum at Sterling could be the least cost PVRR alternative by at least $79,000,000, and possibly over $100,000,000 if scrubber limestone is purchased from Sterling and backhauled to the plant.

Obviously, we have necessarily made some assumptions in the attached comparative analysis, and we would like to meet with you again to discuss our analysis and assumptions, and to answer any questions you may have. We believe there are significant savings to you and your customers as reflected in the attached.

In addition, as we have previously discussed, we also have an underground limestone mine in Jessamine County near E.W. Brown. We met last week with Ron Gruzesky at The Kentucky Division of Solid Waste, and, based on that meeting, are planning to submit an application to permit our Jessamine County mine as a special waste landfill to receive all CCPs. Hopefully, there is the possibility of significant savings to you at Brown as well.

When you have a chance, give me or John Walters a call and we can discuss the above, and plan and how to move forward.

Sincerely,

Samuel A.B. Boone

GHENT STATION ALTERNATIVE FOR CCP/GYPSUM DISPOSAL

Background

Sterling Materials is an active underground limestone mine located in Verona, Kentucky, approximately 20 miles from Kentucky Utilities Company's Ghent Station. Sterling currently mines between 1,000,000 and 1,600,000 tons of limestone per year, and has been in operation since 2000.

In addition to producing limestone for the general aggregate construction market, Sterling also mines high calcium limestone for Mississippi Lime Company for use in Mississippi Lime's kiln located on Sterling's property. This high calcium limestone is also suitable for use as scrubber stone in Ghent's limestone FGD scrubber system.

In November 2010, Sterling obtained a Special Waste Permit from the Kentucky Department of Environmental Protection, Division of Waste Management allowing disposal of FGD gypsum in Sterling's mine.

KU has proposed building a new landfill at Ghent in three phases for an estimated total cost of $360,000,000 to handle the plant's three coal combustion by-products ("CCPs") through 2037[1]. KU forecasted the following wet storage CCP production volumes for Ghent Station (Cubic Yards):

Year	Fly Ash	Bottom Ash	Gypsum
2009	540,000	140,000	880,000
2010	550,000	150,000	1,090,000
2011	580,000	150,000	1,120,000
2012	550,000	150,000	1,060,000
2013	550,000	150,000	1,090,000

Source: Coal Combustion Byproduct Plan for Ghent Station dated June 2009 (the "Ghent CCP Plan" attached as Exhibit A)

Ghent's FGD gypsum is currently placed in a wet gypsum stacking pond. Ghent also has a contract to supply CertainTeed, Inc. with gypsum, and KU has estimated that CertainTeed will purchase approximately 222,000 cubic yards per year of gypsum from Ghent. As a result, Ghent will be required to continue diverting a portion of its gypsum production to the gypsum stacking pond.

The Ghent CCP Plan outlines KU's comparative analysis of the various alternatives to reach the least cost PVRR of disposing of Ghent's CCPs. One of the alternatives considered was off-site disposal at Valley View Landfill near Sulfer, Kentucky, approximately 25 miles from Ghent Station.[2] Disposal at Valley View was however dismissed because of the high cost of loading, hauling and landfill tipping fees.[3] Although, KU has redacted from public view the cost associated with the Valley View disposal alternative, based on

[1] Phase I cost thru 2018 of $203,969,979 as set forth in Revenue Requirement Summary for Project 30 – Ghent Landfill Phase I attached as Exhibit B. Total project capital cost estimated to be $360,000,000 per direct testimony of John Voyles before the Kentucky Public Service Commission in Case No. 2009-00197 attached as Exhibit C.
[2] Ghent CCP Plan, footnote 14, page 10.
[3] Supra at page 19.

other information contained in information provided to the KY PSC, it is estimated that the projected cost for disposal at Valley View in 2009 was approximately $29.65 per ton.[4]

Alternative Proposal for Gypsum Disposal at Sterling Materials' Mine

Sterling Materials is proposing that Ghent send all of its gypsum production (net of sales CertainTeed) to Sterling mine for disposal, with Ghent's ash being disposed of in either the new landfill as proposed on Site E/F, or in a new landfill located at Site M as considered by Case 14/28 in the Ghent CCP Plan (See page 18-19). Sterling estimates that the PVRR cost of this alternative is at least $79,000,000 less than KU's proposal for a new landfill at Site E/F, as set forth in Exhibit D.

Assumptions in Exhibit D analysis

1. Total price for loading, hauling and fees to Sterling Materials of $10.95 in 2013.
2. Net CCP production of approximately 868,000 cubic yards (1,090,000 – 222,000 to CertainTeed).
3. Cubic yards to ton conversion factor – cy x 1.155 (based on Trans Ash conversion assumption of 1.3 MCY equals 1.5 million tons as hauled - see page 10 of Ghent CCP Plan).
4. Reduce Phase I construction cost by $53,110,000[5] by continuing to place gypsum temporarily in existing gypsum stacking pond until shipment to Sterling.
   - Dry Gypsum Handling System $36,800,000
   - Gypsum Fines Project $12,600,000
   - Gypsum Dewatering Facility Earthwork $ 3,710,000
5. Phase III landfill construction cost eliminated. Phase II construction delayed from 2018 to 2030.
   - Phase I capacity – 14.7 MCY (See Ghent CCP Plan page 12)
   - Ash Production – 700,000 MCY (See Ghent CCP Plan page 7)
   - Phase I life until full – 21 years
6. Total Phase II and III construction costs - $156,030,021 (see Footnote 1)
   - Phase II construction cost - $80,000,000
   - Phase III construction cost - $76,030,021
7. Eliminate following Ghent Landfill Operating Expenses (See Ghent Landfill Operating Expenses - Phase I attached as Exhibit F)
   - Dry Gypsum Handling System
   - Hauling Gypsum to Landfill
     - Loading
     - Phase I-2.25 mile round trip
     - Landfilling Gypsum
8. Continue 2018 Annual Depreciation Rate of 2.7899% on Eligible Capital through 2037
9. Continue 2018 Property Tax Expense Rate of .1259% on Eligible Capital through 2037
10. Apply KU O&M Escalation Rate of 6% (See Ghent CCP Plan page 22)

[4] Total beneficial reuse cost of approximately $8,900,000 for 1,500,000 tons of Gypsum to Trans Ash, Inc. equals $5.93/ton (See Comprehensive Strategy for Management of Coal Combustion Byproducts – June 2009), which is almost 80% less than per unit volume basis than disposal at Valley View. (Ghent CCP Plan at pages 18 and 20).
[5] See Ghent Landfill Capital Expenditures Phase I attached as Exhibit E.

Purchase of Scrubber Stone from Sterling

Sterling Materials mines a high calcium seam of limestone in its 2nd and 3rd levels that will meet, and possibly exceed, Ghent's calcium specifications for scrubber stone. Based on general industry knowledge, without verification, it is believed that Ghent's current cost of scrubber stone FOB plant is approximately $8.00.

The proposed price of 10.50 for gypsum disposal at Sterling includes $4.50 per ton for transportation, based upon an assumed round trip turn of 1.5 hours, and $75.00 per hour to haul 25 tons.

Sterling is proposing to sell high calcium limestone to Ghent for $6.50 per ton and backhauling the stone to Ghent. If a $1.50 per ton trucking fee is assigned to the transportation of the limestone, Ghent will incur no additional cost for it scrubber stone. However, reducing the transportation component of the gypsum disposal cost by $1.50 reduces the proposed disposal cost from $10.50 to $9.00 per ton, and correspondingly increases the PVRR saving advantage from approximately $79,000,000 to over $100,000,000. (See Exhibit G).

Construct Ash Storage Pond at Site M

Although KU has redacted from public view information provided to the Kentucky PSC on the cost associated with an ash landfill on Site M, it would generally appear that using Site M as an ash landfill verses Site E/F would substantially reduce ash disposal cost and further increase the PVRR saving from disposing all of Ghent's gypsum at Sterling.

Site M is substantially closer to Ghent than Site E/F (Ghent CCP Plan page 12 and Exhibit H). The estimated cost of hauling fly and bottom ash to Site E/F is $2,822,723 in 2013, and the corresponding haul Road maintenance cost is $53,529. Even reducing those costs by a modest 50% for the haul to Site M verses site E/F would produce another $21,800,000 in PVRR savings compared to CCP disposal at Ghent under Project 30.

EXHIBIT A

Coal Combustion Byproduct Plan for Ghent Station For

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Subsidiaries Kentucky Utilities and Louisville Gas and Electric

June 2009

CONFIDENTIAL INFORMATION REDACTED

1. Executive Summary

Kentucky Utilities Company's ("KU") Ghent station ("Ghent") produces three primary coal combustion byproducts ("CCP"): bottom ash, fly ash and gypsum, which are currently stored in two ash treatment basins and two gypsum stacking areas. These storage areas are expected to reach full capacity in 2012, creating a need for additional CCP management solutions.

A variety of on-site and off-site options were considered to meet CCP management needs at Ghent. The most effective solutions were identified through a needs analysis and economic analysis based on engineering cost estimates.

To address the pre-2013 need for gypsum storage capacity, an opportunity to remove a quantity of gypsum to be beneficially reused as structural fill was identified. This reuse option is significantly lower cost than transporting CCP to an off-site landfill, which is the other short-term option.

For longer-term CCP storage needs, KU contracted an engineering consultant to develop potential on-site storage alternatives. Of multiple options considered, four options were selected for further economic evaluation. Based on cost estimates and qualitative factors for these alternatives, the most favorable option is a single on-site landfill to store both ash and gypsum.

The most cost effective and environmentally sound CCP management options for Ghent are:

- a proposal for beneficial reuse of 1.3 million cubic yards ("MCY") of CCP (approximately 75% of annual CCP production) by Trans Ash, Inc. in 2010-2012 (Present value of revenue requirement ("PVRR") of [redacted] million or [redacted] per cubic yard), and
- the construction of a new on-site landfill system to store both ash and gypsum production for 25 years to be in-service by 2013 (PVRR of [redacted] million or [redacted] per cubic yard).

In addition, KU will continue to pursue other beneficial reuse opportunities that result in lower disposal costs.

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2. Background

Kentucky Utilities Company's ("KU's") Ghent generating station ("Ghent") is located in Carroll and Gallatin Counties, Kentucky and is comprised of four coal-fired generating units for a total net station capacity of over 1,900 MW. The station produces three primary coal combustion byproducts ("CCP"): bottom ash, fly ash and gypsum. The Ghent station has four existing on-site storage facilities for CCP as follows:

- Ash Treatment Basin ("ATB") #1
- ATB #2
- North Gypsum Stack
- South Gypsum Stack

The ATBs are used to store bottom ash and fly ash which are byproducts of burning coal. ATB #1 is at maximum capacity[1] and ATB #2 is nearing maximum desired capacity. As of February 2009[2], ATB #2 can hold approximately an additional 2.5 MCY of ash. Ghent is forecast to produce approximately 0.7 MCY of ash annually, thus depleting the capacity in ATB #2 in 2012.[3]

Gypsum is produced by Ghent's flue gas desulfurization ("FGD") systems, which use limestone reagent to remove sulfur dioxide from flue gas. Until an additional repository can be developed, Ghent's gypsum is stacked on site. Based on the plant's expected generation, the existing capacity of the north and south gypsum stacks (collectively the "gypsum stack") is expected to be exhausted in 2012.[4]

Some gypsum is currently sold to a third party for beneficial reuse.[5] CertainTeed, Inc. ("CertainTeed") currently pays KU [redacted] per cubic yard for gypsum to be used as a raw material in the production of wallboard. This contract began in 1999 and runs through 2024. CertainTeed does not have minimum or maximum volume obligations, but their expected annual volume is approximately 222,000 cubic yards of gypsum (approximately 20% of annual gypsum production) based on recent utilization data.[6]

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[1] ATB #1 is not relevant to this analysis as it is not currently receiving any CCP, although it is available for emergency use.

[2] A bathymetric survey of ATB #2 was conducted by HDR/Quest/Rudy for GAI Consultants in February 2009.

[3] The available capacity of ATB #2 at the end of June 2009 is forecasted to be approximately 2.3 MCY.

[4] The available capacity of the gypsum stack at the end of June 2009 is forecasted to be approximately 2.6 MCY.

[5] KU identifies economically and environmentally favorable options to beneficially reuse CCP, consistent with KU's Comprehensive Strategy for Management of CCP shown in Exhibit JNV-3.

[6] Gypsum sales to CertainTeed were 263,000 tons in 2007, 375,000 tons in 2008, and 103,000 tons year-to-date through May 2009. However, their purchases decreased late in 2008 and year-to-date in 2009 as the economy slowed.

3. Process and Methodology

KU and Louisville Gas and Electric Company (collectively "the Companies") develop the most effective plan for meeting the CCP storage needs at each generating station. The process of identifying the plan consists of the three following primary tasks which are performed by several departments within the Companies.

- Needs assessment
- Development of alternatives
- Comparison of alternatives

The CCP storage needs are defined by forecasting the production of CCP over the applicable planning period as compared to the existing storage capacity. The Project Engineering department and the applicable generating station are responsible for providing an estimate of remaining capacity.

The expected life of the existing storage capacity is based on the forecast of CCP production, which is developed by Generation Planning for all stations as a function of the expected coal usage for each unit. The Companies compile information regarding the cost of generation for each unit (fuel, variable O&M, emission costs, etc.), a description of the generation capabilities of each unit (capacity, heat rate curve, commitment parameters, emission rates, availability schedules, etc.), a load forecast, the market price of electricity, and the volumetric ability (transfer capability) to access the market. All of this information is brought together in the PROSYM™[7] software, which is used to model the economic operation of the Companies' generating system. The projected coal usage data provided by this model is checked for reasonableness by comparing the results to historical data.

The Project Engineering department develops alternatives for on-site CCP storage solutions and their associated costs. Any alternatives for off-site disposal such as beneficial reuse or off-site landfill disposal are provided by the generating stations' staff and a CCP team focused on exploring alternatives for byproduct storage. The cash flows for selected options are summarized and provided to Generation Planning for evaluation.

The Generation Planning department evaluates the storage and disposal options received from Project Engineering to determine the present value of revenue requirements ("PVRR") associated with the capital expenditures and O&M expenses of each option. This analysis is performed using the Capital Expenditure Recovery module of the Strategist®[8] software model.

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[7] The PROSYM™ model has formed the foundation of prior analyses involving certificates of convenience and necessity for new generating plants, environmental cost recovery for pollution control equipment, and the fuel adjustment clause.

[8] Strategist® is a proprietary, state-of-the-art resource planning computer model. The Capital Expenditure Recovery module is used to quantify the revenue requirements impact associated with capital projects.

4. Needs Assessment

The following capacities were provided by Project Engineering and the Ghent station:

- ATB #1 is at capacity and is available for emergency use only.
- As of February 2009, the remaining available capacity of ATB #2 is 2.5 million cubic yards.[9]
- The remaining available capacity of the gypsum stacks is estimated to be 2.9 MCY as of January 2009.[10]

The expected life of the remaining capacity of the ATB #2 and the Gypsum Stack were estimated by forecasting the CCP production of ash and gypsum at Ghent. The quantity of ash produced at Ghent is estimated at a coal specification of 11.5% ash by weight of the total quantity of coal used, or approximately 11.5 tons of ash per 100 tons of coal. Converting to volumetric measurement, assuming ash production consists of 80% fly ash and 20% bottom ash by weight, approximately 11.5 cubic yards of total ash is produced per 100 tons of coal.[11]

The chemical reaction by which gypsum is produced results in a net gypsum production of approximately 18% by weight of the total quantity of coal used,[12] or approximately 18 tons of gypsum per 100 tons of coal. Converting to volumetric measurement for the gypsum stack, approximately 17.8 cubic yards of gypsum is produced per 100 tons of coal.

The forecasted CCP production volume for Ghent is shown in Table 1 and depicted graphically in Figure 1 and Figure 2, based on the forecasted coal burn shown in Table 2. Table 2 also contains the historical quantities of coal burned as a comparison to the forecast. The increase in coal burn during the 2010-2013 period is due to the completion of the FGD installations at Ghent in 2009, which required prior scheduled outages on each of the Ghent units during 2007-2009. Also, with the addition of the FGDs, Ghent has lower fuel costs, resulting in higher forecasted generation.

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[9] Based on expected coal burn, Generation Planning forecasts that by the end of 2009, the remaining capacity of ATB #2 will be 1.9 MCY.

[10] Based on expected coal burn and existing beneficial reuse, Generation Planning forecasts that by the end of 2009, the remaining capacity of the gypsum stacks will be 2.2 MCY.

[11] Density assumptions for wet storage are 0.945 tons per cubic yard for bottom ash and 1.0125 tons per cubic yard for both fly ash and gypsum.

[12] Fuel specification assumptions include SO_2 content of approximately 5.9 lb/mmBTU and heat content of 22.16 mmBTU/ton.

Table 1: CCP Production Forecast (MCY)

CCP Production Forecast *(MCY – wet storage)*			
	Fly Ash	**Bottom Ash**	**Gypsum**
2009	0.54	0.14	0.88
2010	0.55	0.15	1.09
2011	0.58	0.15	1.12
2012	0.55	0.15	1.06
2013	0.55	0.15	1.09

Table 2: Ghent Coal Usage (Million Tons)

Ghent Coal Usage *(M Tons)*	
Historical	
2004	5.4
2005	5.6
2006	5.6
2007	5.3
2008	5.7
Forecast	
2009	5.6
2010	6.0
2011	6.3
2012	6.1
2013	6.1

The forecasted generation and the resulting coal usage at Ghent correspond to an average capacity factor of approximately 77%. This relatively high capacity factor is consistent with Ghent's low production cost. Since Ghent is already modeled as a baseload station, the risk of significantly underestimating CCP production is low. However, reduction in load or unexpected outages at Ghent could affect the capacity factor and lower future CCP production.

Figures 1 and 2 show the forecasted cumulative CCP production at the end of each year compared to the expected available capacity at the end of 2009. With current forecasts for ash production and without any additional on-site capacity or off-site storage or reuse, ATB #2 is expected to reach full capacity during 2012, as shown in Figure 1. Assuming no beneficial reuse beyond the expected 222,000 cubic yards per year by CertainTeed, the gypsum stack is also expected to reach maximum capacity in 2012, as shown in Figure 2.

Figure 1: ATB #2 Capacity

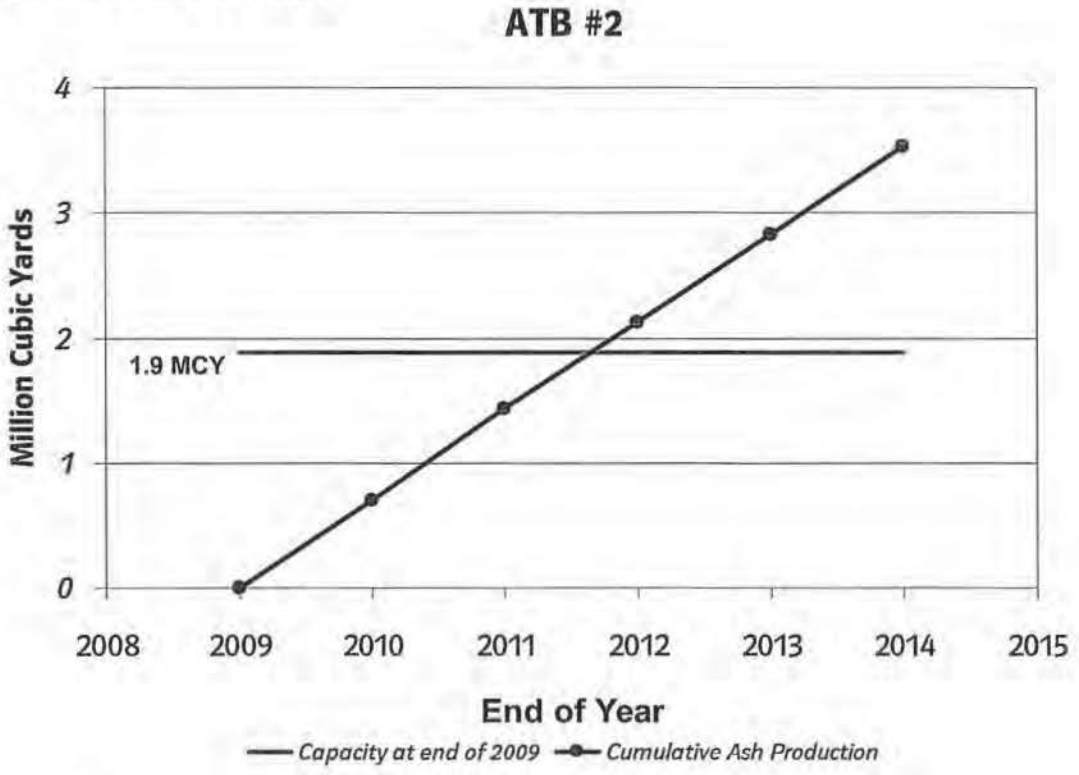
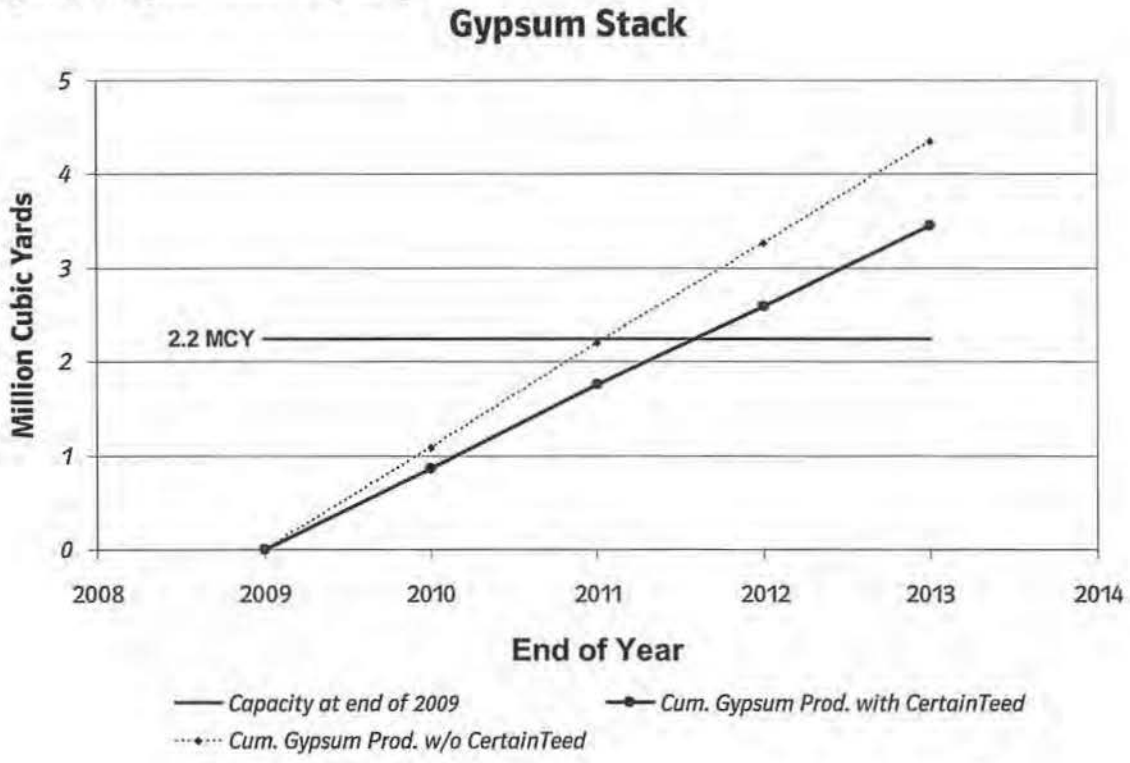


Figure 2: Gypsum Stack Capacity



In summary, the needs assessment indicates that additional CCP disposal alternatives will be needed for both ash and gypsum at Ghent by 2012. At least 0.6 MCY of CCP must be moved off-site in order to maintain operations of the existing storage facilities at Ghent through 2012.

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5. Development of Alternatives

In the case of CCP solutions for Ghent, Project Engineering and the CCP team developed two sets of options for evaluation:

1. Short-term storage options to meet 2009-2012 requirements
2. Long-term storage options to meet 2013-2037 requirements.

The short-term options were developed because long-term options cannot be in service before 2013, and on-site capacity is expected to be depleted in 2012. These options were evaluated independently, leading to a recommendation for short-term and long-term solutions.

5.1 Short-Term Disposal

As a result of ATB #2 and the gypsum stack nearing their maximum desired storage capacities, the station, in conjunction with the CCP Team, negotiated with Trans Ash, Inc. ("Trans Ash"), a company specializing in the reuse of CCP, to beneficially reuse 1.3 MCY (approximately 1.5 million tons as hauled) of CCP as structural fill. The 2009 base cost of this proposal is [redacted] per MCY[13], subject to annual adjustments to the base price and fuel cost adjustments. The base price is redetermined by increasing the previous year's price by 90 percent of the year-over-year percent change in the Consumer Price Index – All Urban Customers, U.S. City Average. The fuel adjustments are made for both off-road and on-road diesel use. Off-road fuel adjustments are calculated as the difference between the base diesel unit price of [redacted] per gallon and the average unit diesel price paid multiplied by the quantity of off-road diesel purchased each year. The on-road diesel adjustment is calculated as the product of the average quantity of fuel used and the difference between the base diesel price and the index price as published by the U.S. Department of Energy, Energy Information Administration in "The U.S. No 2 Diesel Low Sulfur (15-500 ppm) Retail Sales by All Sellers (Cents per Gallon)"

An agreement with Trans Ash would require that the full 1.3 MCY be moved in 2010-2012 to satisfy the end consumer of the beneficial reuse opportunity. Consistent with KU's CCP management strategy, this fill location has been evaluated and confirmed as appropriate for beneficial reuse. The location is not in an environmentally sensitive area.

The only near-term alternative to beneficial reuse of CCP is the use of an existing off-site commercial landfill. For 2009, the total unit cost of storage in the closest off-site landfill was estimated to be [redacted] per cubic yard[14]. In contrast to the Trans Ash proposal, an off-site landfill storage option requires that only a minimum of 0.6 MCY must be moved off-site prior to 2013 to ensure continuing operations at Ghent.

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13 [redacted] per MCY as stored is equivalent to [redacted] per ton as hauled.

14 [redacted] per cubic yard is equivalent to [redacted] per ton as hauled for transport and storage at Valley View landfill near Sulphur, KY, approximately 25 miles from Ghent. Cost components per ton are [redacted] for excavating and loading, [redacted] for hauling, and [redacted] for landfill tipping fee. This quoted tipping fee is slightly below the listed rates of [redacted]/ton for other regional public landfills.

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5.2 Long-Term Storage

To meet the long-term storage needs at Ghent, KU contracted GAI Consultants, Inc., Pittsburgh, PA ("GAI") to provide both an Initial Siting Study ("ISS") and a Final Conceptual Design Study of CCP storage alternatives at Ghent.[15] The ISS identified over forty potential alternatives based on combinations of a number of variables, including storage and transport methods, site locations, and relocation of transmission lines. As a result of this study, four on-site alternatives shown in Table 3 were selected for further consideration. In the process of developing the Final Conceptual Design Study, GAI refined the cost estimates for these alternatives in addition to other detailed engineering tasks. As an alternative to building on-site storage facilities, use of an existing off-site commercial landfill for storing future CCP was also considered as a long-term option.

Table 3: Alternatives for Long-Term Storage

		On-Site				
Case		**14/28**	**37**	**41**	**42/28**	**Off-Site Landfill**
Description		2 Landfills	1 Landfill	1 Pond	1 Pond 1 Landfill	
Total Capacity *(MCY)*		46.1	46.1	53.6	48.3	46.1 needed
Nominal Cost *($M)*	**Capital**					
	O&M[16]					

Each of the cases for on-site long-term storage was designed to hold twenty-five years of CCP production with phased construction. The total capacity required for each case differs due to the different density of CCP stored in ponds versus landfills. Table 4 shows the construction periods, the in-service years, and the capacity for each phase of the on-site cases. The site locations as shown in Figure 3 are noted as follows:

- Site M is north of ATB #2 on property owned by KU.
- Site E/F which is southeast of ATB #2 and include properties owned by KU and approximately 350 acres owned by others.
- Pond L represents vertical and lateral expansion east of ATB #2 with an impoundment.

[15] A preliminary draft of the Final Conceptual Design Study is shown in Exhibit JNV-4.
[16] The O&M figures in Table 3 include the cost for power to operate the on-site storage alternatives.

Figure 3: CCP Storage Site Alternatives

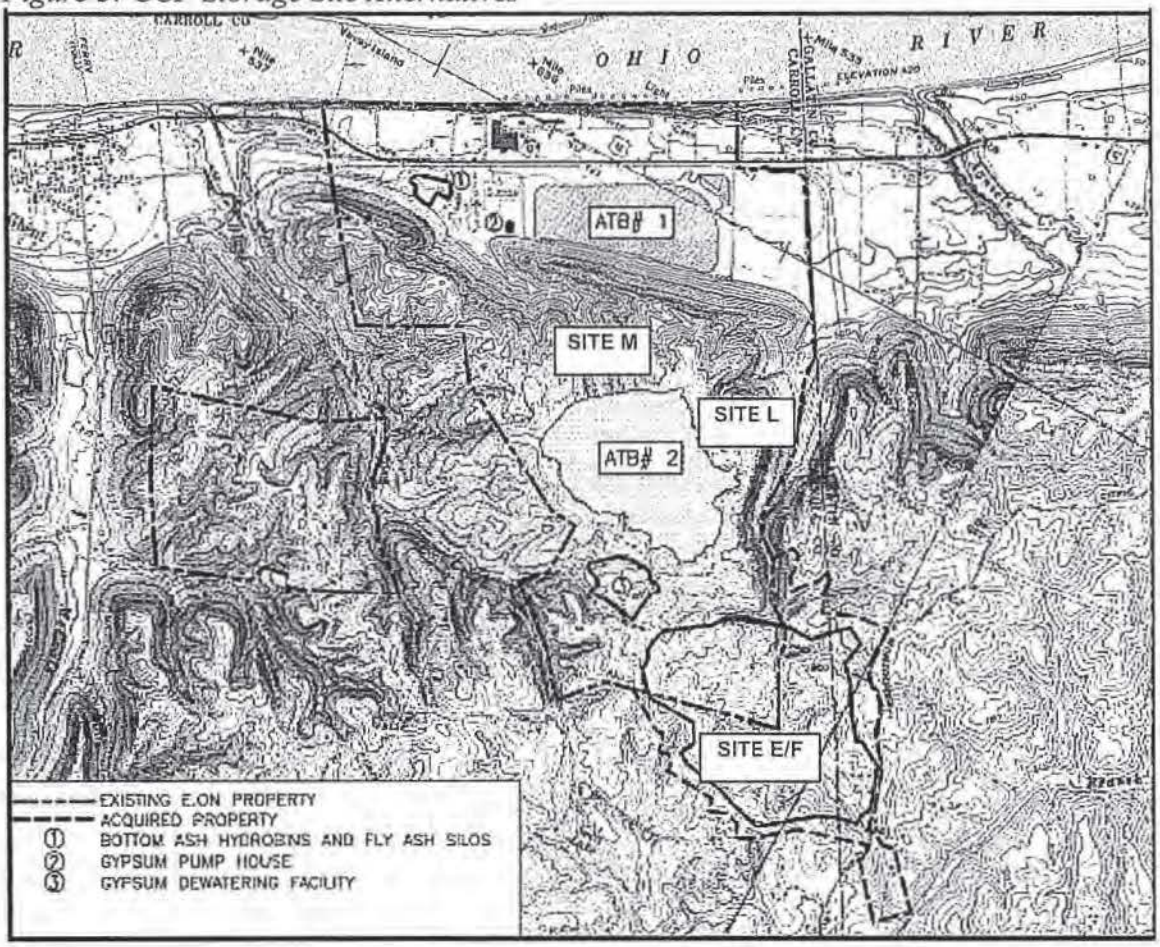


Table 4: Construction Phases for On-Site Storage Options

Case		**14/28**		**37**	**41**	**42/28**	
Site Location		M	E/F	E/F	L	L	E/F
Phase 1	**Construction**	2010-14		2010-14	2010-13	2010-14	
	In-Service	2013		2013	2013	2013	
	Capacity *(MCY)*	5.3	5.7	14.7	16.5	7.2	8.4
Phase 2	**Construction**	2016-18		2018-19	2017-19	2018-20	
	In-Service	2019		2020	2020	2021	
	Capacity *(MCY)*	8.5	8.0	12.3	15.7	8.3	7.7
Phase 3	**Construction**	--	2023-25	2024-26	2025-27	2027-29	
	In-Service	--	2026	2027	2028	2030	
	Capacity *(MCY)*	--	12.4	19.1	21.6	6.1	8.0
Phase 4	**Construction**	2027-29	--	--	--	--	
	In-Service	2030	--	--	--	--	
	Capacity *(MCY)*	6.2	--	--	--	--	--

Case 14/28. Case 14/28 consists of separate landfills for ash and gypsum with ash stored at Site M and gypsum stored at Site E/F. Construction of the landfills consists of four phases as shown in Table 4 with the first phase beginning in 2010 and the final phase ending in 2029. Figure 4 shows the phased cumulative design capacity of the landfill at Site M compared to the forecasted ash production. Figure 5 shows the phased cumulative design capacity of the landfill at Site E/F compared to the forecasted gypsum production both including and excluding the effect of the expected gypsum reuse by CertainTeed. These figures, as well as Figures 6-9, demonstrate that the designs for the timing and volume of capacity additions for each of the cases considered are reasonable compared the forecasted CCP production.

Figure 4: Long-Term Needs Assessment – Case 14/28, Landfill M

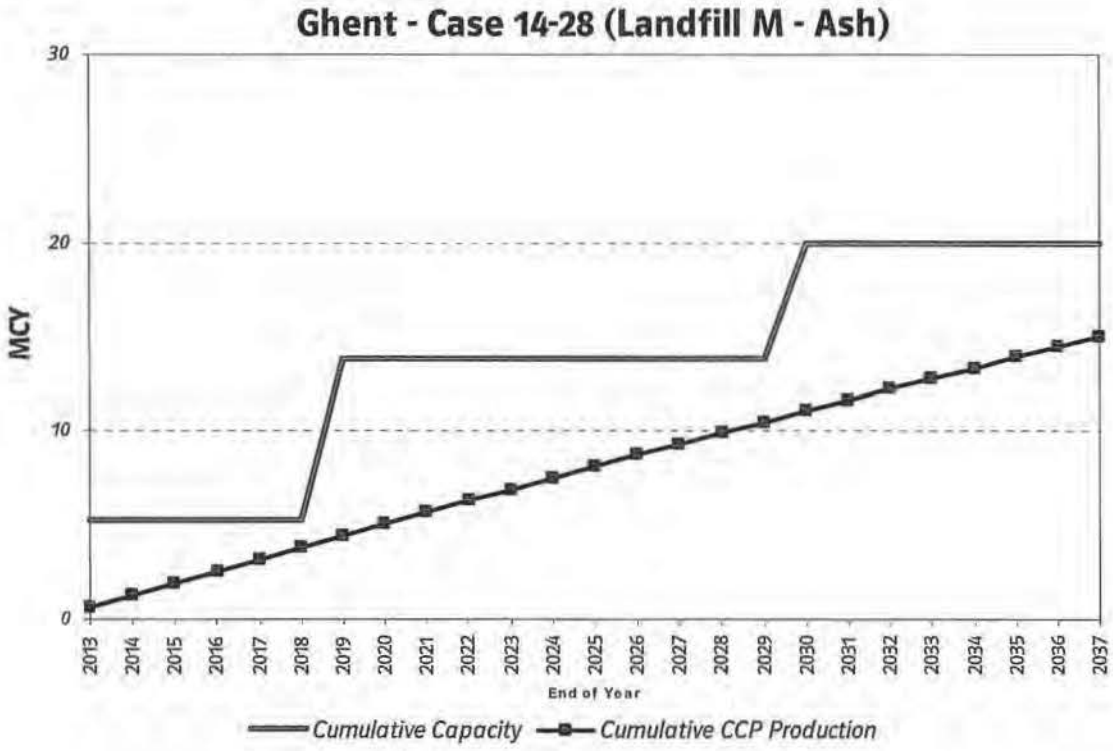
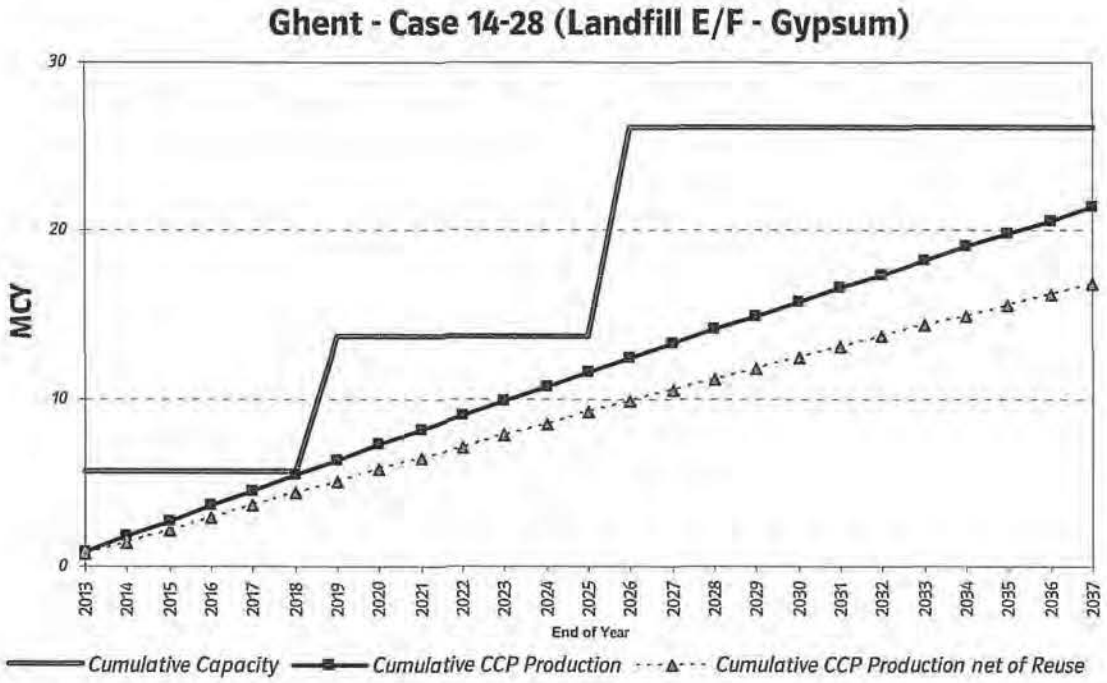
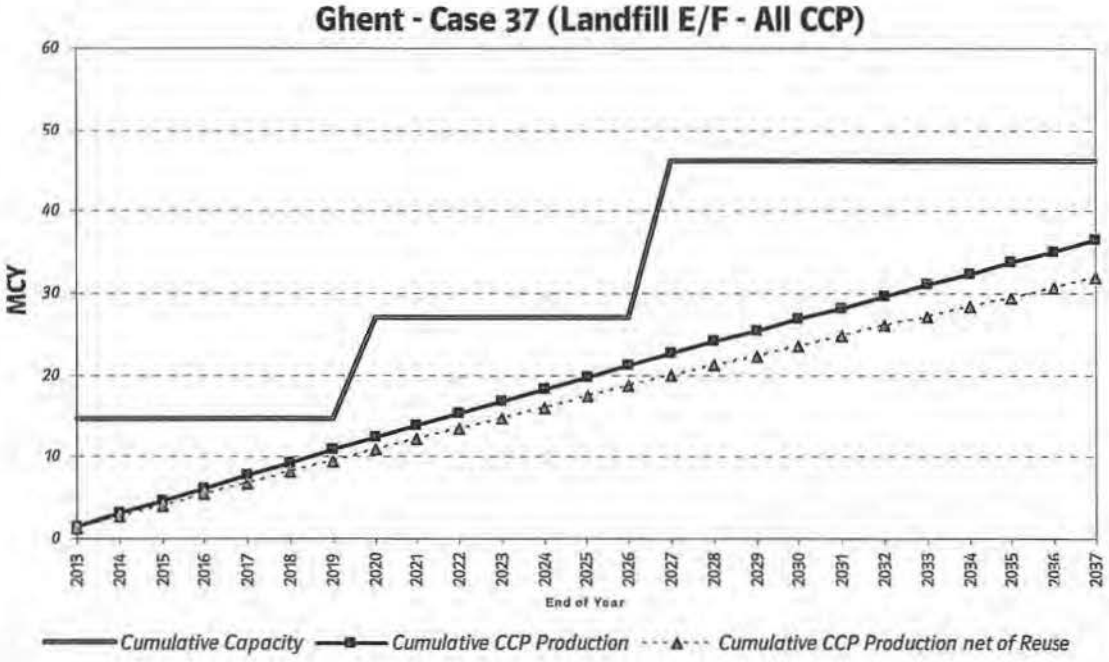


Figure 5: Long-Term Needs Assessment – Case 14/28, Landfill E/F



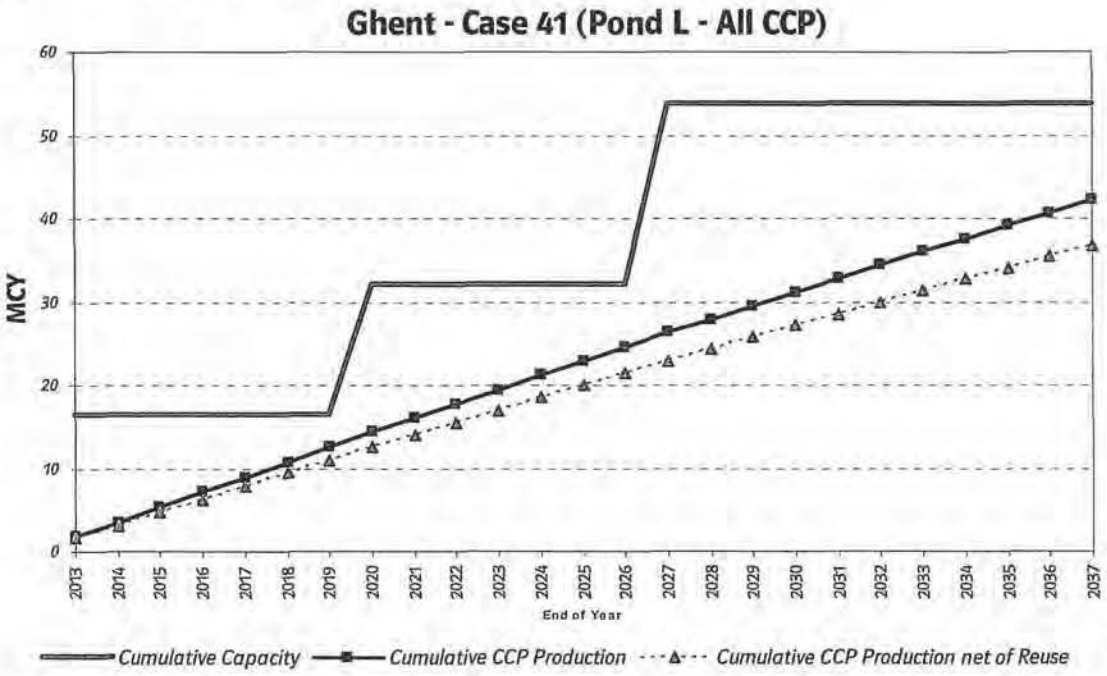
Case 37. Case 37 consists of a single landfill for both ash and gypsum at Site E/F. The construction schedule consists of three phases beginning in 2010 and ending in 2026. Figure 6 shows the phased cumulative design capacity of this landfill compared to the forecasted cumulative CCP production both including and excluding the effect of the expected gypsum reuse by CertainTeed.

Figure 6: Long-Term Needs Assessment – Case 37, Landfill E/F



Case 41. Case 41 consists of a single pond for both ash and gypsum at Site L. The construction schedule consists of three phases beginning in 2010 and ending in 2027. Figure 7 shows the phased cumulative design capacity of this landfill compared to the forecasted cumulative CCP production both including and excluding the effect of the expected gypsum reuse by CertainTeed.

Figure 7: Long-Term Needs Assessment – Case 41, Pond L



Case 42/28. Case 42/28 consists of a pond at "Site L" for ash and a landfill at "Site E/F" for gypsum. Construction of these facilities consists of four phases as shown beginning in 2010 and the final phase ending in 2029. Figure 8 shows the phased cumulative design capacity of the pond at Site L compared to the forecasted ash production. Figure 9 shows the phased cumulative design capacity of the landfill at Site E/F compared to the forecasted gypsum production both including and excluding the effect of the expected gypsum reuse by CertainTeed.

Figure 8: Long-Term Needs Assessment – Case 42/28, Pond L

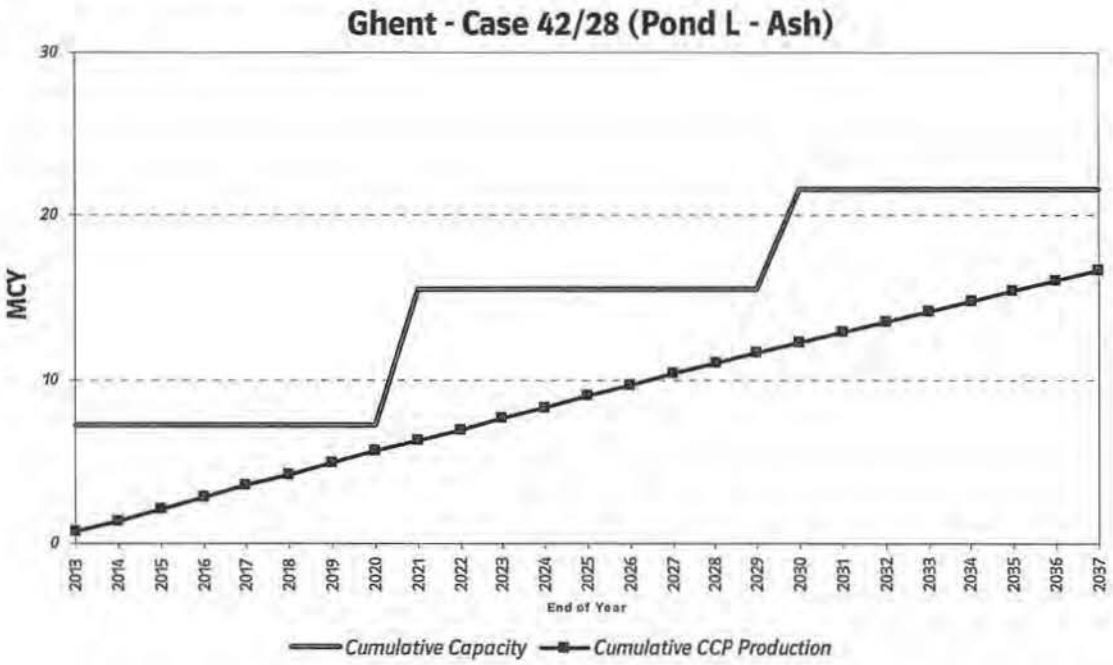
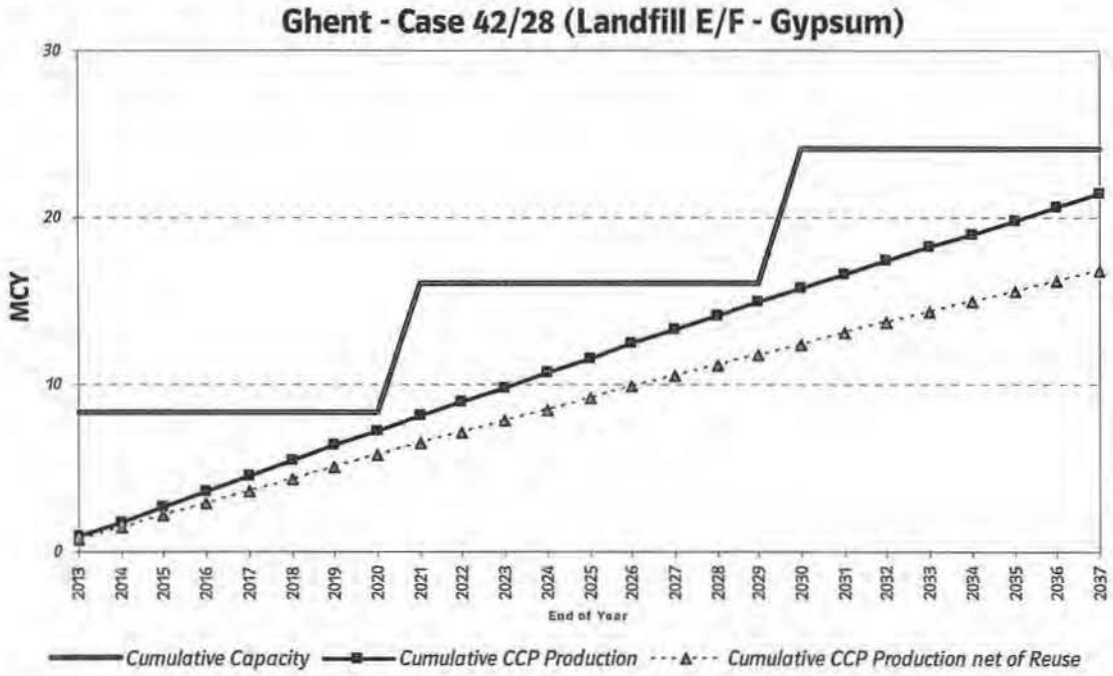


Figure 9: Long-Term Needs Assessment – Case 42/28, Landfill E/F



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6. Comparison of Alternatives

6.1 Short-Term Disposal

The short term disposal analysis compares the cost of a beneficial reuse initiative with Trans Ash to the cost of off-site landfill disposal. The Trans Ash proposal is to move 1.3 MCY in 2010 through 2012 and the plan for off-site landfill disposal is to move 0.6 MCY in 2012. Both of these options consist only of O&M costs, with no additional capital expenditure. As seen in Table 5, the Trans Ash proposal is the least-cost option to meet the short term capacity needs at Ghent. On a cost per volume basis, the Trans Ash option is almost 80% less costly than the off-site landfill option. Also, despite the higher volume requirement, the Trans Ash proposal's PVRR is $9.8 million lower than the off-site landfill alternative.

Table 5: PVRR Analysis Summary of Short-Term Alternatives

	Trans Ash Beneficial Reuse	**Off-site Landfill Disposal**
Total Quantity *(MCY)*	1.3	0.6
PVRR *(2009 million $)*	[redacted]	
Delta to Least Cost Case	*Least Cost*	*9.8*
Unit Cost *(2009 PVRR $/cubic yard)*	[redacted]	

6.2 Long-Term Storage

The long-term storage evaluation (Table 6) compares the PVRR and per-unit cost of four on-site storage alternatives selected in the engineering studies, in addition to disposal in an off-site commercial landfill. The financial assumptions related to the analysis of these cases are shown in Appendix 1, the projected cash flows are shown in Appendix 2, and the annual revenue requirements are detailed in Appendix 3.

The following is a brief comparison of the results:

Case 37. Case 37 consists of a common on-site landfill for both ash and gypsum. This is least cost on a PVRR basis by $26 million. This option is also lowest cost on a per unit volume basis at [redacted] PVRR per cubic yard. The favorable capital profile of this project results from the single landfill approach compared to Case 14/28, which includes separate landfills for ash and gypsum.

Case 14/28. Case 14/28 consists of separate landfills for ash and gypsum and involves higher up-front capital costs ($34 million higher through 2017, $6 million of which is due to transmission expenditures), an accelerated timeline for the addition of subsequent phases, and an additional construction phase compared to Case 37. This is partially offset by slightly lower annual O&M costs due to reduced distances for transporting ash. In summary, the lower costs associated with the shorter transport distances are overcome by the additional costs of the two landfills.

Cases 41 and Case 42/28. Case 41 consists of a single pond for both ash and gypsum and Case 42/28 consists of an ash pond and a gypsum landfill. The construction of an ash

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pond is significantly more capital intensive compared to a landfill, although the ongoing operation is less costly. Through 2016, both of these cases are approximately $95 million higher in total capital costs than Case 37. Construction of the second and third phases increases the capital premium to $850 million for Case 41 and $350 for Case 42/28. Inclusion of the pond closure costs in 2038 raises these figures to $1,145 million and $475 million for Cases 41 and 42/28, respectively. Although the O&M is significantly lower for these cases compared to Case 37, it is not enough to offset the effect of the higher initial capital expenditures.

Off-site landfill. The off-site landfill option consists only of O&M costs, but this option is the highest-cost alternative due to the high unit cost of off-site landfill disposal, which is approximately [redacted] PVRR per cubic yard.

Beneficial Reuse. KU will evaluate beneficial reuse opportunities as they arise, and will pursue proposals that are favorable to on-site disposal.

Table 6: PVRR Analysis Summary of Long-Term Alternatives
(2009 PVRR million $)

Case	14/28	37	41	42/28	Off-Site Landfill
PVRR					
Capital	[redacted]				
O&M					
Total					
Delta to Least Cost Case	*26*	*Least Cost*	*254*	*125*	*413*
Capacity *(MCY)*	46.1	46.1	53.6	48.3	46.1
Unit Cost *(2009 PVRR $/CY)*	[redacted]				

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7. Recommendations

The needs assessment demonstrates a need for additional CCP storage capacity at the Ghent station by 2012. Analysis of the options provided by Project Engineering demonstrates that the most favorable alternatives to meet Ghent's CCP storage needs are:

- Short-term: the proposal for beneficial reuse of 1.3 MCY of gypsum by Trans Ash in 2010 through 2012. The PVRR is [redacted] million, or [redacted] per cubic yard.
- Long-term: constructing the first phase of an on-site landfill to store both ash and gypsum, to be in-service in 2013. The PVRR is [redacted] million, comprised of [redacted] million capital and [redacted] million O&M.

The short-term solution utilizing beneficial reuse is almost 80% less on a per unit of volume basis than disposal at an off-site commercial landfill. The unit cost of this short-term recommendation is also lower than the unit cost of the recommended long-term on-site landfill. The long-term solution includes the construction of a single landfill and is 4% less on a PVRR basis than the dual landfill option (Case 14/28).

Further details regarding the status of this project and the expected construction schedule are shown in Appendix 4.

Appendix 1

Analysis Assumptions

- Study Period: 30-year period for operational costs impacts (2009-2038)
  50-year period for capital costs impacts (2009 through tax life of final project phase).

  The revenue requirements associated with capital costs are determined via the Capital Expenditure and Recovery module of the Strategist production and capital costing software. To completely account for capital projects costs over their lifetime, the revenue requirements associated with new capital projects were included beyond the operational study period through the end of their tax life.

- Capital and O&M costs associated with the addition of new environmental projects will be subject to recovery through the Environmental Cost Recovery ("ECR") mechanism. O&M costs for electrical power usage required to operate equipment related to CCP storage are included when comparing alternatives (noted as "Power" in Appendix 2) but are not included as recoverable costs for calculation of ECR billing factors.

- Financial data
  - Discount rate: 7.81%
  - Income tax rate: 38.9%
  - Insurance rate: 0.07%
  - Property tax rate: 0.15 %
  - Percentage of debt in capital structure: 47.01%
  - Debt interest rate/weighted cost of debt: 4.64%
  - Return on equity: 10.63%
  - Book life - average landfill phase (non-transmission): 12 years
  - Book life – transmission (line relocation): 40 years
  - Tax life: 20 years
  - Annual capital and O&M escalation rate: 6%
  - Contingency included in cost estimates: ~28%
  - E.ON US overhead included in capital costs 3.5%
  - Capital expenditures are assumed to occur at year end.

- CCP data
  - Coal ash content: 11.5%
  - Coal SO_2 content: ~5.9 lb/mmBTU
  - Coal heat content: 22.16 mmBTU/ton
  - FGD removal efficiency:
    Units 1, 3, 4 98%
    Unit 2 (currently Unit 1) 94.3%

Appendix 2

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Projected Cash Flows

Annual Cash Flows Short-Term Options O&M Only *($ thousands)*		
Case	**Beneficial Reuse**	**Off-Site Landfill**
2008	[redacted]	
2009		
2010		
2011		
2012		
2013+		
Total		

$ thousands

Case **14/28** **2 landfills**

	Annual Cash Flows										
	Capital						**O&M**				**Total**
	Phase1	Phase2	Phase3	Phase4	Transmission	**Total Capital**	Non-Power	Power	Trans Ash	**Total O&M**	
2008	[redacted]										
2009											
2010											
2011											
2012											
2013											
2014											
2015											
2016											
2017											
2018											
2019											
2020											
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2031											
2032											
2033											
2034											
2035											
2036											
2037											
2038											
Total											

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$ thousands

Case 37 1 landfill

	Annual Cash Flows										
	Capital						O&M				Total
	Phase1	Phase2	Phase3	Phase4	Transmission	Total Capital	Non-Power	Power	Trans Ash	Total O&M	
2008											
2009											
2010											
2011											
2012											
2013											
2014											
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2016											
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2034											
2035											
2036											
2037											
2038											
Total											

CCP Plan for Ghent Station
June 2009
Appendix 2 – Projected Cash Flows

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$ thousands

Case 41 1 pond

	Annual Cash Flows										
	Capital						O&M				Total
	Phase1	Phase2	Phase3	Phase4	Transmission	**Total Capital**	Non-Power	Power	Trans Ash	**Total O&M**	
2008	[redacted]										
2009											
2010											
2011											
2012											
2013											
2014											
2015											
2016											
2017											
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2036											
2037											
2038											
Total											

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$ thousands

Case 42/28 1 pond/1 landfill

	Annual Cash Flows										
	Capital						O&M				Total
	Phase1	Phase2	Phase3	Phase4	Transmission	Total Capital	Non-Power	Power	Trans Ash	Total O&M	
2008	[redacted]										
2009											
2010											
2011											
2012											
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2034											
2035											
2036											
2037											
2038											
Total											

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$ thousands

Case	Off-Site Landfill (O&M Only)		
	Capital	O&M	
Cost Escalation		6%	2%
2008			
2009			
2010			
2011			
2012			
2013			
2014			
2015			
2016			
2017			
2018			
2019			
2020			
2021			
2022			
2023			
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2036			
2037			
2038			
Total			

Appendix 3

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Revenue Requirements Detail

$ thousands

Case	Short-Term Beneficial Reuse (O&M Only)	
	Capital	O&M
2008	[redacted]	
2009		
2010		
2011		
2012		
2013+		
2009 PVRR		

$ thousands

Case	Short-Term Off-Site Landfill (O&M Only)	
	Capital	O&M
2008	[redacted]	
2009		
2010		
2011		
2012		
2013+		
2009 PVRR		

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$ thousands

Case 14/28 2 landfills

	Annual Revenue Requirements										
	Capital						O&M				Total
	Phase1	Phase2	Phase3	Phase4	Transmission	Total Capital	Non-Power	Power	Trans Ash	Total O&M	
2009											
2010											
2011											
2012											
2013											
2014											
2015											
2016											
2017											
2018											
2019											
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2021											
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2055											
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2057											
2058											
2009 PVRR											

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$ thousands

Case 37 1 landfill

	Annual Revenue Requirements										
	Capital						O&M				Total
	Phase1	Phase2	Phase3	Phase4	Transmission	Total Capital	Non-Power	Power	Trans Ash	Total O&M	
2009											
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2057											
2058											
2009 PVRR											

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$ thousands

Case 41 1 pond

	Annual Revenue Requirements										
	Capital						O&M				Total
	Phase1	Phase2	Phase3	Phase4	Transmission	**Total Capital**	Non-Power	Power	Trans Ash	**Total O&M**	
2009	[redacted]										
2010											
2011											
2012											
2013											
2014											
2015											
2016											
2017											
2018											
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2009 PVRR											

CCP Plan for Ghent Station
June 2009
Appendix 3 – Revenue Requirements Detail

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$ thousands

Case 42/28 1 pond/1 landfill

	Annual Revenue Requirements										
	Capital						O&M				Total
	Phase1	Phase2	Phase3	Phase4	Transmission	Total Capital	Non-Power	Power	Trans Ash	Total O&M	
2009	[redacted]										
2010											
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2009 PVRR											

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Case **Off-Site Landfill (O&M Only)**

$ thousands

using 6% cost escalation

	Capital	O&M
2008	[redacted]	
2009		
2010		
2011		
2012		
2013		
2014		
2015		
2016		
2017		
2018		
2019		
2020		
2021		
2022		
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2037		
2038		
2009 PVRR		

using 2% cost escalation

	Capital	O&M
2008	[redacted]	
2009		
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2017		
2018		
2019		
2020		
2021		
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2009 PVRR		

Appendix 4

Project Status *(As of April 2009)*

Detailed Design

The detailed design phase for Case 37 is currently in progress. Meetings are being conducted with the E.ON U.S. property appraiser and the individual owners of properties within the boundaries of Site F. After obtaining approval from these property owners, geotechnical, archaeological, ecological, and historical structures studies have begun. This will allow for the completion of the detailed engineering design and the start of the development of the permits for this location. The permits are expected to be submitted by the end of 2009.

Construction Schedule

The preliminary design for the landfill is to develop it in three distinct phases. This detail as well as the closure plan for each phase will be further developed in the detailed design phase. The current schedule is shown in Table A4-1.

Table A4-1: Preliminary Construction Schedule

Task	Schedule
Property acquisition	3rd Quarter 2009
Begin first phase landfill development	2nd Quarter 2010
Finish first phase landfill development	4th Quarter 2014
Begin second phase landfill development	2nd Quarter 2018
Finish second phase landfill development	4th Quarter 2019
Begin third phase landfill development	2nd Quarter 2024
Finish third phase landfill development	4th Quarter 2026

The risks associated with the project include the following:

- Inability to reach a settlement on purchase price for one or more of the properties required for the site, resulting in lengthy eminent domain litigation
- Discovery of unknown geotechnical issues
- Litigation and intervention of the 401/404 permits for Sites E/F could delay the construction of this section of the work
- Failure of major components during start-up
- Unseasonable weather, such as exceptionally heavy rainfall, late spring, early on-set of winter, etc.
- Engineering design failure of a component of design
- Contractor delays due to shortage of materials or manpower issues
- Change in regulations

EXHIBIT B

Revenue Requirements Summary
2009 Amended Plan - KU

		2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Project 30	**Ghent Landfill - Phase I**										
	Revenue Requirement										
	Eligible Plant	4,321,671	46,476,848	105,485,803	177,577,356	191,133,916	201,941,953	202,576,976	203,254,220	203,969,979	203,969,979
	Less: Retired Plant	-	-	-	-	-	-	-	-	-	-
	Less: Accumulated Depreciation	-	-	-	-	(5,110,443)	(10,744,624)	(16,396,577)	(22,067,370)	(27,758,132)	(33,448,895)
	Plus: Accumulated Depreciation on retired plant	-	-	-	-	-	-	-	-	-	-
	Less: Deferred Tax Balance	-	-	-	-	(732,114)	(3,915,287)	(6,717,731)	(9,167,625)	(11,289,716)	(13,100,909)
	Plus: Deferred Tax Balance on retired plant	-	-	-	-	-	-	-	-	-	-
	Environmental Compliance Rate Base	4,321,671	46,476,848	105,485,803	177,577,356	185,291,361	187,282,042	179,464,668	172,019,025	164,922,131	157,420,175
	Rate of return	11.12%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
		$ 480,509	$ 5,098,393	$ 11,571,030	$ 19,478,952	$ 20,325,122	$ 20,543,496	$ 19,685,976	$ 18,869,243	$ 18,090,765	$ 17,267,855
	Operating expenses	84,800	121,349	128,630	136,348	19,003,308	20,143,507	21,352,117	22,633,244	23,991,239	25,430,713
	Annual Depreciation expense	-	-	-	-	5,110,443	5,634,180	5,651,953	5,670,793	5,690,762	5,690,762
	Less depreciation on retired plant	-	-	-	-	-	-	-	-	-	-
	Annual Property Tax expense	-	6,483	69,716	158,229	266,366	279,035	286,796	279,274	271,780	264,318
	Total OE	$ 84,800	$ 127,832	$ 198,346	$ 294,577	$ 24,380,117	$ 26,056,723	$ 27,290,866	$ 28,583,310	$ 29,953,782	$ 31,385,793
	Total E(m)	565,309	5,226,225	11,769,376	19,773,528	44,705,239	46,600,208	46,976,843	47,452,553	48,044,547	48,653,648

EXHIBIT C

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

THE APPLICATION OF KENTUCKY UTILITIES COMPANY FOR A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY AND APPROVAL OF ITS 2009 COMPLIANCE PLAN FOR RECOVERY BY ENVIRONMENTAL SURCHARGE	))))))	CASE NO. 2009-00197

DIRECT TESTIMONY OF
JOHN N. VOYLES, JR.
VICE PRESIDENT, TRANSMISSION AND GENERATION SERVICES
KENTUCKY UTILITIES COMPANY

Filed: June 26, 2009

contain sufficient capacity for bottom ash storage for approximately 30 years. The Main Pond will have approximately six (6) years of projected remaining capacity after elevation 912 feet is completed in 2012.

Exhibit JNV-8 is a conceptual design report for the Brown station ash treatment basin, prepared by the Fuller Mossbarger Scott and May engineering firm. Exhibit JNV-9 is a preliminary design report for the Brown station ash treatment basin, also prepared by Fuller Mossbarger Scott and May engineering firm. Exhibits JNV-8 and JNV-9 are on the compact disc included with this testimony and provide more details associated with this project.

Q. Is this project a cost-effective means of complying with environmental regulations and permits?

A. Yes, this project allows KU to continue to comply with all applicable environmental regulations. As first demonstrated in Case No. 2004-00426, and consistent with the 2006 ECR Update made to the Commission staff, the phased approach to the construction of the ash treatment basins continues to be the least-cost approach to manage CCP at the Brown station. As detailed in the testimony of Mr. Schram, high costs continue to preclude cost effective off-site alternatives.

Project 30 – Ghent Station Landfill

Q. Please describe the new landfill at the Ghent Station (Project 30), the anticipated cost and the associated timeline.

A. Project 30 consists of the first phase (Phase I) of a three phase, new landfill construction project at the Ghent station for continued on-site management of CCP. Completion of this project requires the procurement of approximately 350 acres of

land and relocation of approximately 2,500 linear feet of transmission line, existing underground utilities and a small cemetery (currently known to contain six burial plots). The project includes a transport system for the CCP material and the installation of a leachate collection/sediment retention pond. Phase I is expected to cost approximately $204 million with a total project capital cost (Phases I-III) estimated to be approximately $360 million. Phase I construction is expected to take 18-24 months to complete and is expected to be in-service by 2013.

Of the two existing on-site ash treatment basins, Basin #2 is currently the only operational basin at the Ghent station. Basin #1 reached its maximum desired capacity in 1995. Basin #2 was put into service in 1995 with a storage capacity of 2,580 acre-feet. In Case No. 2002-00208, KU advised the Commission that Basin #2 would be constructed in two phases. Detailed bids indicated that the two phase construction to elevation 800 feet had a projected total cost of $25.9 million (2002 dollars), while construction to 800 feet in one project had a total cost of $17.3 million. To take advantage of this significant cost savings, KU modified the construction project and undertook a single project to elevate the dike to 800 feet. As mentioned in Exhibit CRS-3 of Mr. Schram's testimony (the Coal Combustion Byproduct Plan for the Ghent station), vertical expansion of Basin #2 beyond 800 feet at Ghent was determined to be cost prohibitive.

Project 30 (Phase I of the proposed new landfill at the Ghent generating station) includes the following scope of work:

1. **Initial Siting Study** (Completed) – This phase evaluated various CCP storage locations on existing Ghent property and the area surrounding the plant. Initially, 42 landfill and impoundment scenarios were evaluated during this study.

2. **Conceptual Design** (Completed) – This phase took the results of the Initial Siting Study and developed 5 storage alternatives and provided scope of work estimates and net present value evaluations. Based on this data the best storage alternative was chosen, Case #37 – Single 25 year, landfill located on both existing plant and non-plant property.

3. **Final Design** (In Progress) – This phase will design and permit Case #37. Work in this phase will include the landfill design/permitting, wetlands/stream mitigation, transmission/distribution line relocation design, various environmental studies, etc. The goal of this phase is to obtain the construction permits, develop Issued for Construction drawings and specifications for all phases, as well as develop the landfill O&M manual.

4. **Phase I Construction** – Once the Certificate of Public Convenience and Necessity ("CPCN") and the permits have been received, a contractor will be chosen to perform the following (this is a high level list of activities):

- Mobilization
- Clearing and grubbing of the landfill and borrow areas
- Construction of stormwater/sediment ponds
- Grade work to attain the proper subgrade of the landfill
- Development of the borrow site(s)
- Installation of the liner system
- Installation of the leachate collection system, ponds, as well as the transfer system
- Construction of new site access roads
- Installation of the gypsum fines systems
- Construction of the CCP transfer storage facility across US-42
- Installation of the pipe conveyor
- Construction of the Gypsum Dewatering facility
- Upgrades to existing CCP transfer systems
- De-mobilization

Exhibit JNV-10 consists of two GAI Consultants reports on the initial siting study and conceptual design of the Ghent station landfill and is on the compact disc included with this testimony. Exhibit JNV-10 provides more details associated with this project.

Q. Is KU requesting a CPCN for the proposed landfill at Ghent (Project 30)?

A. Yes, as discussed in the testimony of Mr. Bellar, KU is requesting a CPCN for Project 30 in Exhibit JNV-1. Project 30 is associated with the construction of a new landfill and supporting systems at the Ghent station.

Q. Why is KU seeking a CPCN for Project 30, the proposed Ghent landfill at this time?

A. As discussed in Exhibit CRS-3 of Mr. Schram's testimony, KU's Ghent station produces three (3) coal combustion byproducts: bottom ash, fly ash and gypsum. The station has two (2) existing on-site treatment basins for ash and two (2) stacking areas for gypsum. Basin #1 is at its maximum desired capacity. As discussed in Exhibit CRS-3, Basin #2 and the gypsum stack facilities are both forecasted to reach their maximum desired capacity in 2012. In accordance with the CCP Strategy and the analysis presented in Mr. Schram's testimony, the recommended long-term CCP management alternative is Project 30, a landfill for all CCP material. The preliminary construction schedule for this project requires construction of the landfill to begin in 2010. As such, KU is requesting a CPCN in support of this project.

Q. What alternatives to the proposed project were evaluated?

A. The Initial Siting Study identified 42 potential alternatives based on combinations of variables including

- storage and CCP transport methods

- site locations
- transmission line relocation needs

Consistent with the CCP Strategy, opportunities for beneficial reuse were also evaluated by the Companies. The beneficial reuse alternatives at Ghent are discussed in Project 33. Mr. Schram's testimony provides details associated with the evaluation of the alternatives at Ghent.

Q. Is the proposed new on-site landfill at Ghent (Project 30) consistent with the Companies' strategy for long-term management of CCP?

A. Yes. The landfill ensures adequate on-site CCP management capacity exists for the long-term and will be constructed in multiple phases. Furthermore, as discussed in Mr. Schram's testimony, analytical assessments have been performed to identify and utilize any cost effective beneficial reuse alternatives in order to minimize environmental impact and promote environmental stewardship.

Q. Is this project a cost-effective means of complying with environmental regulations and permits?

A. Yes. Project 30 provides the best means of compliance with discharge and water quality regulations. Mr. Schram's testimony provides details associated with the economics of this project.

Project 31 -- Trimble County Station
Ash Treatment Basin and Gypsum Storage Pond

Q. Please describe the Trimble County Station Ash Treatment Basin and Gypsum Storage Pond (Project 31), the anticipated cost and the associated timeline.

A. The primary CCP managed at the Trimble County station are bottom ash, fly ash and gypsum, all of which are currently managed either through treatment in the 85 acre

EXHIBIT D

Revenue Requirments Summary
Gypsum Disposal at Sterling Materials

			2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Revenue Requirement													
Eligible Plant			$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 203,254,220	$ 203,969,979	$ 203,969,979	$ 248,969,979
Less Gypsum Plant			$ -	$ (14,090,000)	$ (40,060,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (98,110,000)
Revised Eligible Plant			$ 4,321,671	$ 32,388,846	$ 65,425,803	$ 124,467,356	$ 138,023,918	$ 148,831,953	$ 149,468,976	$ 150,144,220	$ 150,859,979	$ 150,859,979	$ 150,859,979
Less Accumulated Depreciation							$ (3,690,414)	$ (7,842,826)	$ (12,013,010)	$ (16,202,034)	$ (20,411,027)	$ (24,620,020)	$ (28,829,013)
Less Deferred Tax Balance							$ (528,683)	$ (2,857,926)	$ (4,921,730)	$ (6,731,945)	$ (8,301,165)	$ (9,641,200)	$ (11,289,441)
Environmental Compliance Rate Base			$ 4,321,671	$ 32,388,846	$ 65,425,803	$ 124,467,356	$ 133,804,821	$ 138,131,202	$ 132,534,236	$ 127,210,241	$ 122,147,788	$ 116,598,759	$ 110,741,525
Rate of Return			11.1%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
Assumed Tons (1.155)	1,000,000		$ 480,509	$ 3,553,056	$ 7,177,211	$ 13,654,069	$ 14,678,389	$ 15,152,993	$ 14,539,006	$ 13,954,963	$ 13,399,612	$ 12,790,884	$ 12,148,345
86.7500% Cubic yards	867,500												
Operating Expenses			$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,556
less Gypsum to On-site Landfill							$ (8,887,032)	$ (9,420,254)	$ (9,985,469)	$ (10,584,598)	$ (11,219,674)	$ (11,892,854)	$ (12,606,425)
Gypsum to Sterling	**$ 10.50**						$ 10,500,000	$ 11,130,000	$ 11,797,800	$ 12,505,668	$ 13,256,008	$ 14,051,369	$ 14,894,451
Net Operating			$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 20,616,276	$ 21,853,253	$ 23,164,448	$ 24,554,314	$ 26,027,573	$ 27,589,228	$ 29,244,581
Annual Depreciation							$ 3,690,414	$ 4,152,411	$ 4,170,184	$ 4,189,024	$ 4,208,993	$ 4,208,993	$ 4,208,993
Annual Property Tax Expense				$ 6,483	$ 69,718	$ 158,229	$ 266,366	$ 279,017	$ 286,798	$ 279,274	$ 271,751	$ 264,317	$ 264,317
Total OE			$ 84,800	$ 127,832	$ 198,348	$ 294,577	$ 24,573,056	$ 26,284,681	$ 27,621,430	$ 29,022,612	$ 30,508,317	$ 32,062,537	$ 33,717,891
Total E(m) Gypsum to Sterling		$ 476,298,826	$ 565,309	$ 3,680,888	$ 7,375,559	$ 13,948,646	$ 39,251,445	$ 41,437,674	$ 42,160,436	$ 42,977,575	$ 43,907,929	$ 44,853,421	$ 45,866,236
Total E(m) - Project 30 (See below)		$ 555,782,375	$ 565,309	$ 5,226,225	$ 11,769,378	$ 19,773,528	$ 44,705,239	$ 46,600,208	$ 46,976,843	$ 47,458,553	$ 48,044,547	$ 48,653,648	$ 55,312,476
Difference **PVRR**	**7.81%**	**$ (79,483,549)**	$ -	$ (1,545,337)	$ (4,393,819)	$ (5,824,882)	$ (5,453,794)	$ (5,162,534)	$ (4,816,407)	$ (4,480,978)	$ (4,136,618)	$ (3,800,227)	$ (9,446,240)
Date			12/31/2009	12/31/2010	12/31/2011	12/31/2012	12/31/2013	12/31/2014	12/31/2015	12/31/2016	12/31/2017	12/31/2018	12/31/2019

Revenue Requirments Summary
2009 Amended Plan
Project 30 Ghent Landfill Phase I
See Exhibit B

			2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
													Start Phase II
Revenue Requirement													$ 40,000,000
Eligible Plant			$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 203,254,220	$ 203,969,979	$ 203,969,979	$ 248,969,979
Less Gypsum Plant			$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Revised Eligible Plant			$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 203,254,220	$ 203,969,979	$ 203,969,979	$ 248,969,979
Less Accumulated Depreciation							$ (5,110,443)	$ (10,744,623)	$ (16,396,576)	$ (22,067,369)	$ (27,758,131)	$ (33,448,893)	$ (40,395,155)
Less Deferred Tax Balance							$ (732,114)	$ (3,915,341)	$ (6,717,677)	$ (9,168,992)	$ (11,289,232)	$ (13,098,586)	$ (15,818,743)
Environmental Compliance Rate Base			$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 185,291,361	$ 187,281,989	$ 179,464,723	$ 172,017,859	$ 164,922,616	$ 157,422,500	$ 192,756,081
Rate of Return			11.1%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
			$ 480,509	$ 5,098,729	$ 11,571,793	$ 19,480,236	$ 20,326,462	$ 20,544,834	$ 19,687,280	$ 18,870,359	$ 18,092,011	$ 17,269,248	$ 21,145,342
Operating Expenses			$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,555.78
less Gypsum to On-site Landfill							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Gypsum to Sterling							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Net Operating			$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,556
Annual Depreciation							$ 5,110,443	$ 5,634,180	$ 5,651,953	$ 5,670,793	$ 5,690,762	$ 5,690,762	$ 6,946,262
Annual Property Tax Expense				$ 6,483	$ 69,718	$ 158,229	$ 266,366	$ 279,017	$ 286,798	$ 279,274	$ 271,751	$ 264,317	$ 264,317
Total OE			$ 84,800	$ 127,832	$ 198,348	$ 294,577	$ 24,380,117	$ 26,056,704	$ 27,290,868	$ 28,583,311	$ 29,953,752	$ 31,385,792	$ 34,167,134
Total E(m) Gypsum to On-site Landfill as Calculated			$ 565,309	$ 5,226,561	$ 11,770,141	$ 19,774,813	$ 44,706,579	$ 46,601,539	$ 46,978,148	$ 47,453,670	$ 48,045,763	$ 48,655,040	$ 55,312,476
Total E(m) Gypsum to On-site Landfill per KU			$ 565,309	$ 5,226,225	$ 11,769,378	$ 19,773,528	$ 44,705,239	$ 46,600,208	$ 46,976,843	$ 47,458,553	$ 48,044,547	$ 48,653,648	
Calculation Check Difference			$ -	$ 336	$ 763	$ 1,285	$ 1,340	$ 1,331	$ 1,305	$ (4,883)	$ 1,216	$ 1,392	
Site E/F Hauling cost of Ash 2.25 mile round trip							$ 2,822,723	$ 2,992,086	$ 3,171,612	$ 3,361,908	$ 3,563,623	$ 3,777,440	$ 4,004,087
Haul Road Maintenance							$ 53,529	$ 56,741	$ 60,145	$ 63,754	$ 67,579	$ 71,634	$ 75,932
Total							$ 2,876,252	$ 3,048,827	$ 3,231,757	$ 3,425,662	$ 3,631,202	$ 3,849,074	$ 4,080,018
Reduce by 50% for Site M			$ -	$ -	$ -	$ -	$ 1,438,126	$ 1,524,414	$ 1,615,878	$ 1,712,831	$ 1,815,601	$ 1,924,537	$ 2,040,009
Difference **PVRR**	**7.81%**	**$ (21,865,903)**											

Revenue Requirments Summary
Gypsum Disposal at Sterling Materials

			2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
													Start Phase II
Revenue Requirement													$ 40,000,000
Eligible Plant			$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 323,969,979	$ 353,969,979	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
Less Gypsum Plant			$ (133,110,000)	$ (133,110,000)	$ (133,110,000)	$ (133,110,000)	$ (133,110,000)	$ (173,110,000)	$ (203,110,000)	$ (209,140,021)	$ (209,140,021)	$ (209,140,021)	$ (169,140,021)
Revised Eligible Plant			$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 190,859,979
Less Accumulated Depreciation			$ (33,038,006)	$ (37,246,999)	$ (41,455,992)	$ (45,664,985)	$ (49,873,978)	$ (54,082,972)	$ (58,291,965)	$ (62,500,958)	$ (66,709,951)	$ (70,918,944)	$ (76,243,937)
Less Deferred Tax Balance			$ (12,937,683)	$ (14,585,925)	$ (16,234,167)	$ (17,882,408)	$ (19,530,650)	$ (21,178,892)	$ (22,827,133)	$ (24,475,375)	$ (26,123,617)	$ (27,771,858)	$ (29,857,126)
Environmental Compliance Rate Base			$ 104,884,290	$ 99,027,055	$ 93,169,820	$ 87,312,585	$ 81,455,351	$ 75,598,116	$ 69,740,881	$ 63,883,646	$ 58,026,411	$ 52,169,177	$ 84,758,916
Rate of Return			10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
Assumed Tons (1.155)		1,000,000	$ 11,505,807	$ 10,863,268	$ 10,220,729	$ 9,578,191	$ 8,935,652	$ 8,293,113	$ 7,650,575	$ 7,008,036	$ 6,365,497	$ 5,722,959	$ 9,298,053
86.7500% Cubic yards		867,500											
Operating Expenses			$ 28,573,949	$ 30,288,386	$ 32,105,689	$ 34,032,031	$ 36,073,952	$ 38,238,390	$ 40,532,693	$ 42,964,655	$ 45,542,534	$ 48,275,086	$ 51,171,591
less Gypsum to On-site Landfill			$ (13,362,811)	$ (14,164,579)	$ (15,014,454)	$ (15,915,321)	$ (16,870,241)	$ (17,882,455)	$ (18,955,402)	$ (20,092,727)	$ (21,298,290)	$ (22,576,188)	$ (23,930,759)
Gypsum to Sterling	**$**	**10.50**	$ 15,788,118	$ 16,735,405	$ 17,739,529	$ 18,803,901	$ 19,932,135	$ 21,128,063	$ 22,395,747	$ 23,739,492	$ 25,163,861	$ 26,673,693	$ 28,274,114
Net Operating			$ 30,999,256	$ 32,859,211	$ 34,830,764	$ 36,920,610	$ 39,135,847	$ 41,483,997	$ 43,973,037	$ 46,611,419	$ 49,408,105	$ 52,372,591	$ 55,514,946
Annual Depreciation			$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 5,324,993
Annual Property Tax Expense			$ 322,630	$ 367,985	$ 367,985	$ 367,985	$ 367,985	$ 367,985	$ 419,820	$ 458,696	$ 466,510	$ 466,510	$ 466,510
Total OE			$ 35,530,879	$ 37,436,190	$ 39,407,743	$ 41,497,588	$ 43,712,825	$ 46,060,976	$ 48,601,850	$ 51,279,108	$ 54,083,607	$ 57,048,094	$ 61,306,449
Total E(m) Gypsum to Sterling		$ 476,298,826	$ 47,036,686	$ 48,299,458	$ 49,628,472	$ 51,075,779	$ 52,648,477	$ 54,354,089	$ 56,252,425	$ 58,287,144	$ 60,449,105	$ 62,771,052	$ 70,604,502
Total E(m) - Project 30 (See below)		$ 555,782,375	$ 60,594,706	$ 61,145,021	$ 61,752,847	$ 62,469,712	$ 63,302,156	$ 69,590,749	$ 74,557,268	$ 76,324,534	$ 77,376,925	$ 78,576,175	$ 79,939,378
Difference	**PVRR**	**7.81% $ (79,483,549)**	$ (13,558,020)	$ (12,845,563)	$ (12,124,375)	$ (11,393,932)	$ (10,653,679)	$ (15,236,660)	$ (18,304,843)	$ (18,037,390)	$ (16,927,821)	$ (15,805,123)	$ (9,334,876)
Date			12/31/2020	12/31/2021	12/31/2022	12/31/2023	12/31/2024	12/31/2025	12/31/2026	12/31/2027	12/31/2028	12/31/2029	12/31/2030

Revenue Requirments Summary
2009 Amended Plan
Project 30 Ghent Landfill Phase I
See Exhibit B

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
						Start Phase III					
Revenue Requirement	$ 40,000,000					$ 40,000,000	$ 30,000,000	$ 6,030,021			
Eligible Plant	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 323,969,979	$ 353,969,979	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
Less Gypsum Plant	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Revised Eligible Plant	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 323,969,979	$ 353,969,979	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
Less Accumulated Depreciation	$ (48,317,917)	$ (56,240,679)	$ (64,163,440)	$ (72,086,202)	$ (80,008,964)	$ (89,047,726)	$ (98,923,488)	$ (108,967,487)	$ (119,011,486)	$ (129,055,485)	$ (139,099,485)
Less Deferred Tax Balance	$ (18,921,296)	$ (22,023,850)	$ (25,126,403)	$ (28,228,957)	$ (31,331,510)	$ (34,871,089)	$ (38,738,438)	$ (42,671,668)	$ (46,604,898)	$ (50,538,128)	$ (54,471,358)
Environmental Compliance Rate Base	$ 216,730,766	$ 205,705,451	$ 194,680,135	$ 183,654,820	$ 172,629,505	$ 200,051,164	$ 216,308,054	$ 208,360,845	$ 194,383,616	$ 180,406,387	$ 166,429,157
Rate of Return	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
	$ 23,775,365	$ 22,565,888	$ 21,356,411	$ 20,146,934	$ 18,937,457	$ 21,945,613	$ 23,728,993	$ 22,857,185	$ 21,323,883	$ 19,790,581	$ 18,257,279
Operating Expenses	$ 28,573,949.13	$ 30,288,386.07	$ 32,105,689.24	$ 34,032,030.59	$ 36,073,952.43	$ 38,238,389.57	$ 40,532,692.95	$ 42,964,654.53	$ 45,542,533.80	$ 48,275,085.83	$ 51,171,590.97
less Gypsum to On-site Landfill	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Gypsum to Sterling	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Net Operating	$ 28,573,949	$ 30,288,386	$ 32,105,689	$ 34,032,031	$ 36,073,952	$ 38,238,390	$ 40,532,693	$ 42,964,655	$ 45,542,534	$ 48,275,086	$ 51,171,591
Annual Depreciation	$ 7,922,762	$ 7,922,762	$ 7,922,762	$ 7,922,762	$ 7,922,762	$ 9,038,762	$ 9,875,762	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999
Annual Property Tax Expense	$ 322,630	$ 367,985	$ 367,985	$ 367,985	$ 367,985	$ 367,985	$ 419,820	$ 458,696	$ 466,510	$ 466,510	$ 466,510
Total OE	$ 36,819,341	$ 38,579,133	$ 40,396,436	$ 42,322,778	$ 44,364,700	$ 47,645,137	$ 50,828,274	$ 53,467,349	$ 56,053,043	$ 58,785,595	$ 61,682,100
Total E(m) Gypsum to On-site Landfill as Calculated	$ 60,594,706	$ 61,145,021	$ 61,752,847	$ 62,469,712	$ 63,302,156	$ 69,590,749	$ 74,557,268	$ 76,324,534	$ 77,376,925	$ 78,576,175	$ 79,939,378
Total E(m) Gypsum to On-site Landfill per KU											
Calculation Check Difference											
Site E/F Hauling cost of Ash 2.25 mile round trip	$ 4,244,332	$ 4,498,992	$ 4,768,931	$ 5,055,067	$ 5,358,371	$ 5,679,873	$ 6,020,666	$ 6,381,906	$ 6,764,820	$ 7,170,709	$ 7,600,952
Haul Road Maintenance	$ 80,488	$ 85,317	$ 90,436	$ 95,862	$ 101,614	$ 107,711	$ 114,174	$ 121,024	$ 128,285	$ 135,982	$ 144,141
Total	$ 4,324,820	$ 4,584,309	$ 4,859,367	$ 5,150,929	$ 5,459,985	$ 5,787,584	$ 6,134,839	$ 6,502,930	$ 6,893,105	$ 7,306,692	$ 7,745,093
Reduce by 50% for Site M	$ 2,162,410	$ 2,292,154	$ 2,429,684	$ 2,575,465	$ 2,729,993	$ 2,893,792	$ 3,067,420	$ 3,251,465	$ 3,446,553	$ 3,653,346	$ 3,872,547
Difference **PVRR** **7.81% $ (21,865,903)**											

Revenue Requirments Summary
Gypsum Disposal at Sterling Materials

				2031	2032	2033	2034	2035	2036	2037	
Revenue Requirement				$ 40,000,000							
Eligible Plant				$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	
Less Gypsum Plant				$ (129,140,021)	$ (129,140,021)	$ (129,140,021)	$ (129,140,021)	$ (129,140,021)	$ (129,140,021)	$ (129,140,021)	
Revised Eligible Plant				$ 230,859,979	$ 230,859,979	$ 230,859,979	$ 230,859,979	$ 230,859,979	$ 230,859,979	$ 230,859,979	
Less Accumulated Depreciation				$ (82,684,930)	$ (89,125,923)	$ (95,566,916)	$ (102,007,909)	$ (108,448,902)	$ (114,889,895)	$ (121,330,888)	
Less Deferred Tax Balance				$ (32,379,419)	$ (34,901,711)	$ (37,424,004)	$ (39,946,297)	$ (42,468,590)	$ (44,990,883)	$ (47,513,176)	
Environmental Compliance Rate Base				$ 115,795,631	$ 106,832,345	$ 97,869,059	$ 88,905,773	$ 79,942,487	$ 70,979,202	$ 62,015,916	
Rate of Return				10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	
Assumed	Tons (1.155)	1,000,000		$ 12,702,781	$ 11,719,508	$ 10,736,236	$ 9,752,963	$ 8,769,691	$ 7,786,418	$ 6,803,146	
86.7500%	Cubic yards	867,500									
Operating Expenses				$ 54,241,886	$ 57,496,400	$ 60,946,184	$ 64,602,955	$ 68,479,132	$ 72,587,880	$ 76,943,153	
less Gypsum to On-site Landfill				$ (25,366,604)	$ (26,888,601)	$ (28,501,917)	$ (30,212,032)	$ (32,024,754)	$ (33,946,239)	$ (35,983,013)	
Gypsum to Sterling		**$ 10.50**		$ 29,970,561	$ 31,768,795	$ 33,674,922	$ 35,695,418	$ 37,837,143	$ 40,107,371	$ 42,513,814	
Net Operating				$ 58,845,843	$ 62,376,594	$ 66,119,189	$ 70,086,341	$ 74,291,521	$ 78,749,012	$ 83,473,953	
Annual Depreciation				$ 6,440,993	$ 6,440,993	$ 6,440,993	$ 6,440,993	$ 6,440,993	$ 6,440,993	$ 6,440,993	
Annual Property Tax Expense				$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	
Total OE				$ 65,753,346	$ 69,284,096	$ 73,026,692	$ 76,993,843	$ 81,199,024	$ 85,656,515	$ 90,381,456	
Total E(m) Gypsum to Sterling			$ 476,298,826	$ 78,456,126	$ 81,003,604	$ 83,762,928	$ 86,746,807	$ 89,968,715	$ 93,442,933	$ 97,184,602	$ 1,547,998,022
Total E(m) - Project 30 (See below)			$ 555,782,375	$ 81,476,372	$ 83,197,583	$ 85,114,065	$ 87,237,534	$ 89,580,409	$ 92,155,855	$ 94,977,826	$ 1,754,455,070
Difference	**PVRR**	**7.81%**	**$ (79,483,549)**	$ (3,020,245)	$ (2,193,978)	$ (1,351,137)	$ (490,727)	$ 388,306	$ 1,287,079	$ 2,206,776	$ (206,457,048)
Date				12/31/2031	12/31/2032	12/31/2033	12/31/2034	12/31/2035	12/31/2036	12/31/2037	
											$ (206,457,048)

Revenue Requirments Summary
2009 Amended Plan
Project 30 Ghent Landfill Phase I
See Exhibit B

	2031	2032	2033	2034	2035	2036	2037
Revenue Requirement							
Eligible Plant	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
Less Gypsum Plant	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Revised Eligible Plant	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
Less Accumulated Depreciation	$ (149,143,484)	$ (159,187,483)	$ (169,231,482)	$ (179,275,482)	$ (189,319,481)	$ (199,363,480)	$ (209,407,479)
Less Deferred Tax Balance	$ (58,404,588)	$ (62,337,818)	$ (66,271,048)	$ (70,204,279)	$ (74,137,509)	$ (78,070,739)	$ (82,003,969)
Environmental Compliance Rate Base	$ 152,451,928	$ 138,474,699	$ 124,497,469	$ 110,520,240	$ 96,543,010	$ 82,565,781	$ 68,588,552
Rate of Return	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
	$ 16,723,976	$ 15,190,674	$ 13,657,372	$ 12,124,070	$ 10,590,768	$ 9,057,466	$ 7,524,164
Operating Expenses	$ 54,241,886.43	$ 57,496,399.62	$ 60,946,183.60	$ 64,602,954.61	$ 68,479,131.89	$ 72,587,879.80	$ 76,943,152.59
less Gypsum to On-site Landfill	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Gypsum to Sterling	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Net Operating	$ 54,241,886	$ 57,496,400	$ 60,946,184	$ 64,602,955	$ 68,479,132	$ 72,587,880	$ 76,943,153
Annual Depreciation	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999
Annual Property Tax Expense	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510
Total OE	$ 64,752,395	$ 68,006,908	$ 71,456,692	$ 75,113,463	$ 78,989,641	$ 83,098,389	$ 87,453,661
Total E(m) Gypsum to On-site Landfill as Calculated	$ 81,476,372	$ 83,197,583	$ 85,114,065	$ 87,237,534	$ 89,580,409	$ 92,155,855	$ 94,977,826
Total E(m) Gypsum to On-site Landfill per KU							
Calculation Check Difference							
Site E/F Hauling cost of Ash 2.25 mile round trip	$ 8,057,009	$ 8,540,429	$ 9,052,855	$ 9,596,026	$ 10,171,788	$ 10,782,095	$ 11,429,021
Haul Road Maintenance	$ 152,790	$ 161,957	$ 171,675	$ 181,975	$ 192,894	$ 204,467	$ 216,735
Total	$ 8,209,799	$ 8,702,387	$ 9,224,530	$ 9,778,002	$ 10,364,682	$ 10,986,563	$ 11,645,756
Reduce by 50% for Site M	$ 4,104,899	$ 4,351,193	$ 4,612,265	$ 4,889,001	$ 5,182,341	$ 5,493,281	$ 5,822,878

Difference **PVRR** **7.81%** **$ (21,865,903)**

EXHIBIT E

GHENT LANDFILL (PHASE I)

Operating & Maintenance Costs ($)	2010	2011	2012	2013	2014	2015	2016	2017
Ground Water Sampling and Testing	14,045	14,888	15,781	16,728	17,731	18,795	19,923	21,118
Leachate Management	-	-	-	83,639	88,657	93,977	99,616	105,592
Surveying (As-builts)	16,292	17,270	18,306	19,404	20,569	21,803	23,111	24,497
Pump House Fly Ash and Bottom Ash Segregation	75,843	80,394	85,217	-	-	-	-	-
Dry Ash/Pyrites Handling System - Conveyor	-	-	-	2,161,234	2,290,908	2,428,363	2,574,065	2,728,509
Dry Gypsum Handling System	-	-	-	682,495	723,445	766,851	812,863	861,634
Leachate Pump House	15,169	16,079	17,043	18,066	19,150	20,299	21,517	22,808
Hauling Fly Ash and Bottom Ash to Landfill								
Loading	-	-	-	1,338,226	1,418,519	1,503,630	1,593,848	1,689,479
Phase 1 - 2.25 Mile Round Trip	-	-	-	2,822,723	2,992,087	3,171,612	3,361,909	3,563,623
Hauling Gypsum to Landfill								
Loading	-	-	-	1,746,384	1,851,167	1,962,237	2,079,972	2,204,770
Phase 1 - 2.25 Mile Round Trip	-	-	-	3,997,156	4,236,986	4,491,205	4,760,677	5,046,318
Landfilling Fly Ash and Bottom Ash	-	-	-	2,408,806	2,553,334	2,706,534	2,868,927	3,041,062
Landfilling Gypsum	-	-	-	3,143,492	3,332,101	3,532,027	3,743,949	3,968,586
Ash/Gypsum Placement QA/QC	-	-	-	54,198	57,450	60,897	64,551	68,424
Maintenance								
Landfills	-	-	-	301,101	319,167	338,317	358,616	380,133
Haul Roads	-	-	-	53,529	56,741	60,145	63,754	67,579
Dust Control	-	-	-	156,126	165,494	175,424	185,949	197,106
TOTAL	**121,349**	**128,630**	**136,348**	**19,003,308**	**20,143,507**	**21,352,117**	**22,633,244**	**23,991,239**

EXHIBIT F

GHENT LANDFILL (PHASE I)

Capital Expenditures ($ million)	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Total
Property Acquisition											
Disposal Site(s)	-	-	4.66	-	-	-	-	-	-	-	**4.66**
Overhead Electric Line(s)	-	-	0.03	-	-	-	-	-	-	-	**0.03**
Buffer Zones	-	-	-	-	2.37	-	-	-	-	-	**2.37**
Higher End House Acquisition	-	-	1.40	-	-	-	-	-	-	-	**1.40**
Engineering, Permits and Fees, and Construction Documents	0.46	2.00	-	-	-	-	-	-	-	-	**2.46**
Stream and Wetland Mitigation	-	-	4.14	-	-	-	-	-	-	-	**4.14**
Ground Water Monitoring System	-	0.27	-	-	-	-	-	-	-	-	**0.27**
Transmission Line Relocation Design, Engineering, and Construction	-	-	-	-	0.82	-	-	-	-	-	**0.82**
CCWD Relocation	-	-	0.12	-	-	-	-	-	-	-	**0.12**
Pump House Fly Ash and Bottom Ash Segregation	-	0.72	-	-	-	-	-	-	-	-	**0.72**
Dry Ash/Pyrites Handling System - Conveyor	-	-	16.29	27.08	38.93	-	-	-	-	-	**82.31**
Dry Gypsum Handling System	-	-	7.79	15.96	13.05	-	-	-	-	-	**36.80**
Gypsum Fines Project	-	0.74	6.30	6.30	-	-	-	-	-	-	**13.34**
Initial Site Preparation											
Clearing, Grubbing, and Site Preparation	-	-	-	0.62	0.65	0.69	-	-	-	-	**1.96**
Stripping and Stockpiling Soil	-	-	-	0.50	0.53	0.56	-	-	-	-	**1.58**
Hauling Topsoil - Phase 1 - 1.0 Mile Round Trip	-	-	-	0.19	0.20	0.21	-	-	-	-	**0.59**
Erosion and Sedimentation Controls	-	-	-	0.06	0.06	0.06	-	-	-	-	**0.18**
Sedimentation Pond	-	-	-	0.33	-	-	-	-	-	-	**0.33**
Collection Channels (Fabriform)	-	-	-	0.36	0.38	0.40	-	-	-	-	**1.15**
Diversion Channels (Riprap)	-	-	-	0.11	0.12	0.12	-	-	-	-	**0.35**
Liner Subgrade Preparation											
Scraping and Hauling - 0.25 Mile Round Trip	-	-	-	0.32	0.33	0.35	-	-	-	-	**1.01**
Excavating	-	-	-	0.15	0.16	0.17	-	-	-	-	**0.49**
Hauling Subgrade - Phase 1 - 1.0 Mile Round Trip	-	-	-	0.31	0.33	0.35	-	-	-	-	**0.99**
Spreading and Compacting Subgrade	-	-	-	0.49	0.52	0.55	-	-	-	-	**1.57**
Subgrade QA/QC	-	-	-	0.24	0.25	0.27	-	-	-	-	**0.76**
Gypsum Dewatering Facility Earthwork											
Excavating	-	-	-	0.73	-	-	-	-	-	-	**0.73**
Hauling Earth - 1.0 Mile Round Trip	-	-	-	1.53	-	-	-	-	-	-	**1.53**
Spreading and Compacting	-	-	-	1.21	-	-	-	-	-	-	**1.21**
Earthwork QA/QC	-	-	-	0.24	-	-	-	-	-	-	**0.24**

GHENT LANDFILL (PHASE I)

Capital Expenditures ($ million)	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Total
Haul Roads											
CCP Disposal On-Landfill Haul Road (60 Feet Wide)	-	-	-	-	0.61	0.05	0.05	0.05	0.05	0.06	**0.87**
CCP Disposal Off-Landfill Haul Road (60 Feet Wide)	-	-	-	0.30	1.03	-	-	-	-	-	**1.33**
Liner											
Landfill - Single Liner System	-	-	-	-	7.00	7.43	7.87	-	-	-	**22.30**
Liner System QA/QC	-	-	-	-	1.23	1.30	1.38	-	-	-	**3.90**
Leachate Collector Line	-	-	-	-	0.19	0.20	0.21	-	-	-	**0.60**
On-Landfill Leachate Trunk Line	-	-	-	-	0.08	0.08	0.09	-	-	-	**0.25**
Off-Landfill Leachate Trunk Line	-	-	-	-	0.07	-	-	-	-	-	**0.07**
Leachate Storage Pond	-	-	-	-	0.29	-	-	-	-	-	**0.29**
Leachate Pump House	-	-	-	-	0.09	-	-	-	-	-	**0.09**
Leachate Pipe Line	-	-	-	-	0.08	-	-	-	-	-	**0.08**
Underdrains - Trunk	-	-	-	-	0.17	0.18	0.19	-	-	-	**0.54**
Underdrains - Collector	-	-	-	-	0.11	0.12	0.12	-	-	-	**0.35**
Cap											
Intermediate Soil Cover	-	-	-	-	-	-	0.28	0.30	0.32	0.34	**1.24**
Cap System	-	-	-	-	-	-	0.22	0.23	0.25	0.26	**0.96**
Cap System QA/QC	-	-	-	-	-	-	0.03	0.03	0.03	0.03	**0.12**
Total	**0.46**	**3.72**	**40.73**	**57.01**	**69.65**	**13.10**	**10.44**	**0.62**	**0.65**	**0.69**	**197.07**
E.ON-US Overheads	0.02	0.13	1.43	2.00	2.44	0.46	0.37	0.02	0.02	0.02	**6.90**
Total with Overheads	**0.47**	**3.85**	**42.16**	**59.01**	**72.09**	**13.56**	**10.81**	**0.64**	**0.68**	**0.72**	**203.97**

EXHIBIT G

Revenue Requirments Summary
Gypsum Disposal at Sterling Materials

			2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Revenue Requirement													
Eligible Plant			$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 203,254,220	$ 203,969,979	$ 203,969,979	$ 248,969,979
Less Gypsum Plant			$ -	$ (14,090,000)	$ (40,060,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (98,110,000)
Revised Eligible Plant			$ 4,321,671	$ 32,388,846	$ 65,425,803	$ 124,467,356	$ 138,023,918	$ 148,831,953	$ 149,468,976	$ 150,144,220	$ 150,859,979	$ 150,859,979	$ 150,859,979
Less Accumulated Depreciation							$ (3,690,414)	$ (7,842,826)	$ (12,013,010)	$ (16,202,034)	$ (20,411,027)	$ (24,620,020)	$ (28,829,013)
Less Deferred Tax Balance							$ (528,683)	$ (2,857,926)	$ (4,921,730)	$ (6,731,945)	$ (8,301,165)	$ (9,641,200)	$ (11,289,441)
Environmental Compliance Rate Base			$ 4,321,671	$ 32,388,846	$ 65,425,803	$ 124,467,356	$ 133,804,821	$ 138,131,202	$ 132,534,236	$ 127,210,241	$ 122,147,788	$ 116,598,759	$ 110,741,525
Rate of Return			11.1%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
Assumed Tons (1.155)	1,000,000		$ 480,509	$ 3,553,056	$ 7,177,211	$ 13,654,069	$ 14,678,389	$ 15,152,993	$ 14,539,006	$ 13,954,963	$ 13,399,612	$ 12,790,884	$ 12,148,345
86.7500% Cubic yards	867,500												
Operating Expenses			$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,556
less Gypsum to On-site Landfill							$ (8,887,032)	$ (9,420,254)	$ (9,985,469)	$ (10,584,598)	$ (11,219,674)	$ (11,892,854)	$ (12,606,425)
Gypsum to Sterling	**$ 9.00**						$ 9,000,000	$ 9,540,000	$ 10,112,400	$ 10,719,144	$ 11,362,293	$ 12,044,030	$ 12,766,672
Net Operating			$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,116,276	$ 20,263,253	$ 21,479,048	$ 22,767,790	$ 24,133,858	$ 25,581,889	$ 27,116,803
Annual Depreciation							$ 3,690,414	$ 4,152,411	$ 4,170,184	$ 4,189,024	$ 4,208,993	$ 4,208,993	$ 4,208,993
Annual Property Tax Expense				$ 6,483	$ 69,718	$ 158,229	$ 266,366	$ 279,017	$ 286,798	$ 279,274	$ 271,751	$ 264,317	$ 264,317
Total OE			$ 84,800	$ 127,832	$ 198,348	$ 294,577	$ 23,073,056	$ 24,694,681	$ 25,936,030	$ 27,236,088	$ 28,614,602	$ 30,055,199	$ 31,590,112
Total E(m) Gypsum to Sterling		$ 453,492,164	$ 565,309	$ 3,680,888	$ 7,375,559	$ 13,948,646	$ 37,751,445	$ 39,847,674	$ 40,475,036	$ 41,191,051	$ 42,014,214	$ 42,846,083	$ 43,738,457
Total E(m) - Project 30 (See below)		$ 555,782,375	$ 565,309	$ 5,226,225	$ 11,769,378	$ 19,773,528	$ 44,705,239	$ 46,600,208	$ 46,976,843	$ 47,458,553	$ 48,044,547	$ 48,653,648	$ 55,312,476
Difference **PVRR**	**7.81%**	**$ (102,290,212)**	$ -	$ (1,545,337)	$ (4,393,819)	$ (5,824,882)	$ (6,953,794)	$ (6,752,534)	$ (6,501,807)	$ (6,267,502)	$ (6,030,333)	$ (5,807,565)	$ (11,574,019)
Date			12/31/2009	12/31/2010	12/31/2011	12/31/2012	12/31/2013	12/31/2014	12/31/2015	12/31/2016	12/31/2017	12/31/2018	12/31/2019

Revenue Requirments Summary
2009 Amended Plan
Project 30 Ghent Landfill Phase I
See Exhibit B

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
											Start Phase II
Revenue Requirement											$ 40,000,000
Eligible Plant	$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 203,254,220	$ 203,969,979	$ 203,969,979	$ 248,969,979
Less Gypsum Plant	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Revised Eligible Plant	$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 203,254,220	$ 203,969,979	$ 203,969,979	$ 248,969,979
Less Accumulated Depreciation					$ (5,110,443)	$ (10,744,623)	$ (16,396,576)	$ (22,067,369)	$ (27,758,131)	$ (33,448,893)	$ (40,395,155)
Less Deferred Tax Balance					$ (732,114)	$ (3,915,341)	$ (6,717,677)	$ (9,168,992)	$ (11,289,232)	$ (13,098,586)	$ (15,818,743)
Environmental Compliance Rate Base	$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 185,291,361	$ 187,281,989	$ 179,464,723	$ 172,017,859	$ 164,922,616	$ 157,422,500	$ 192,756,081
Rate of Return	11.1%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
	$ 480,509	$ 5,098,729	$ 11,571,793	$ 19,480,236	$ 20,326,462	$ 20,544,834	$ 19,687,280	$ 18,870,359	$ 18,092,011	$ 17,269,248	$ 21,145,342
Operating Expenses	$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,555.78
less Gypsum to On-site Landfill					$ -	$ -	$ -	$ -	$ -	$ -	$ -
Gypsum to Sterling					$ -	$ -	$ -	$ -	$ -	$ -	$ -
Net Operating	$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,556
Annual Depreciation					$ 5,110,443	$ 5,634,180	$ 5,651,953	$ 5,670,793	$ 5,690,762	$ 5,690,762	$ 6,946,262
Annual Property Tax Expense		$ 6,483	$ 69,718	$ 158,229	$ 266,366	$ 279,017	$ 286,798	$ 279,274	$ 271,751	$ 264,317	$ 264,317
Total OE	$ 84,800	$ 127,832	$ 198,348	$ 294,577	$ 24,380,117	$ 26,056,704	$ 27,290,868	$ 28,583,311	$ 29,953,752	$ 31,385,792	$ 34,167,134
Total E(m) Gypsum to On-site Landfill as Calculated	$ 565,309	$ 5,226,561	$ 11,770,141	$ 19,774,813	$ 44,706,579	$ 46,601,539	$ 46,978,148	$ 47,453,670	$ 48,045,763	$ 48,655,040	$ 55,312,476
Total E(m) Gypsum to On-site Landfill per KU	$ 565,309	$ 5,226,225	$ 11,769,378	$ 19,773,528	$ 44,705,239	$ 46,600,208	$ 46,976,843	$ 47,458,553	$ 48,044,547	$ 48,653,648	
Calculation Check Difference	$ -	$ 336	$ 763	$ 1,285	$ 1,340	$ 1,331	$ 1,305	$ (4,883)	$ 1,216	$ 1,392	
Site E/F Hauling cost of Ash 2.25 mile round trip					$ 2,822,723	$ 2,992,086	$ 3,171,612	$ 3,361,908	$ 3,563,623	$ 3,777,440	$ 4,004,087
Haul Road Maintenance					$ 53,529	$ 56,741	$ 60,145	$ 63,754	$ 67,579	$ 71,634	$ 75,932
Total					$ 2,876,252	$ 3,048,827	$ 3,231,757	$ 3,425,662	$ 3,631,202	$ 3,849,074	$ 4,080,018
Reduce by 50% for Site M	$ -	$ -	$ -	$ -	$ 1,438,126	$ 1,524,414	$ 1,615,878	$ 1,712,831	$ 1,815,601	$ 1,924,537	$ 2,040,009
Difference **PVRR**	**7.81%**	**$ (21,865,903)**									

Revenue Requirments Summary
Gypsum Disposal at Sterling Materials

			2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
													Start Phase II
Revenue Requirement													$ 40,000,000
Eligible Plant			$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 323,969,979	$ 353,969,979	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
Less Gypsum Plant			$ (133,110,000)	$ (133,110,000)	$ (133,110,000)	$ (133,110,000)	$ (133,110,000)	$ (173,110,000)	$ (203,110,000)	$ (209,140,021)	$ (209,140,021)	$ (209,140,021)	$ (169,140,021)
Revised Eligible Plant			$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 190,859,979
Less Accumulated Depreciation			$ (33,038,006)	$ (37,246,999)	$ (41,455,992)	$ (45,664,985)	$ (49,873,978)	$ (54,082,972)	$ (58,291,965)	$ (62,500,958)	$ (66,709,951)	$ (70,918,944)	$ (76,243,937)
Less Deferred Tax Balance			$ (12,937,683)	$ (14,585,925)	$ (16,234,167)	$ (17,882,408)	$ (19,530,650)	$ (21,178,892)	$ (22,827,133)	$ (24,475,375)	$ (26,123,617)	$ (27,771,858)	$ (29,857,126)
Environmental Compliance Rate Base			$ 104,884,290	$ 99,027,055	$ 93,169,820	$ 87,312,585	$ 81,455,351	$ 75,598,116	$ 69,740,881	$ 63,883,646	$ 58,026,411	$ 52,169,177	$ 84,758,916
Rate of Return			10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
Assumed	Tons (1.155)	1,000,000	$ 11,505,807	$ 10,863,268	$ 10,220,729	$ 9,578,191	$ 8,935,652	$ 8,293,113	$ 7,650,575	$ 7,008,036	$ 6,365,497	$ 5,722,959	$ 9,298,053
86.7500%	Cubic yards	867,500											
Operating Expenses			$ 28,573,949	$ 30,288,386	$ 32,105,689	$ 34,032,031	$ 36,073,952	$ 38,238,390	$ 40,532,693	$ 42,964,655	$ 45,542,534	$ 48,275,086	$ 51,171,591
less Gypsum to On-site Landfill			$ (13,362,811)	$ (14,164,579)	$ (15,014,454)	$ (15,915,321)	$ (16,870,241)	$ (17,882,455)	$ (18,955,402)	$ (20,092,727)	$ (21,298,290)	$ (22,576,188)	$ (23,930,759)
Gypsum to Sterling	**$ 9.00**		$ 13,532,672	$ 14,344,633	$ 15,205,311	$ 16,117,629	$ 17,084,687	$ 18,109,768	$ 19,196,354	$ 20,348,136	$ 21,569,024	$ 22,863,165	$ 24,234,955
Net Operating			$ 28,743,811	$ 30,468,439	$ 32,296,546	$ 34,234,338	$ 36,288,399	$ 38,465,703	$ 40,773,645	$ 43,220,064	$ 45,813,267	$ 48,562,063	$ 51,475,787
Annual Depreciation			$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 5,324,993
Annual Property Tax Expense			$ 322,630	$ 367,985	$ 367,985	$ 367,985	$ 367,985	$ 367,985	$ 419,820	$ 458,696	$ 466,510	$ 466,510	$ 466,510
Total OE			$ 33,275,434	$ 35,045,418	$ 36,873,524	$ 38,811,317	$ 40,865,377	$ 43,042,681	$ 45,402,458	$ 47,887,752	$ 50,488,770	$ 53,237,566	$ 57,267,290
Total E(m) Gypsum to Sterling		$ 453,492,164	$ 44,781,241	$ 45,908,686	$ 47,094,253	$ 48,389,508	$ 49,801,029	$ 51,335,794	$ 53,053,032	$ 54,895,788	$ 56,854,267	$ 58,960,525	$ 66,565,343
Total E(m) - Project 30 (See below)		$ 555,782,375	$ 60,594,706	$ 61,145,021	$ 61,752,847	$ 62,469,712	$ 63,302,156	$ 69,590,749	$ 74,557,268	$ 76,324,534	$ 77,376,925	$ 78,576,175	$ 79,939,378
Difference	**PVRR**	**7.81% $ (102,290,212)**	$ (15,813,466)	$ (15,236,335)	$ (14,658,594)	$ (14,080,204)	$ (13,501,127)	$ (18,254,955)	$ (21,504,236)	$ (21,428,746)	$ (20,522,658)	$ (19,615,651)	$ (13,374,035)
Date			12/31/2020	12/31/2021	12/31/2022	12/31/2023	12/31/2024	12/31/2025	12/31/2026	12/31/2027	12/31/2028	12/31/2029	12/31/2030

Revenue Requirments Summary
2009 Amended Plan
Project 30 Ghent Landfill Phase I
See Exhibit B

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
						Start Phase III					
Revenue Requirement	$ 40,000,000					$ 40,000,000	$ 30,000,000	$ 6,030,021			
Eligible Plant	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 323,969,979	$ 353,969,979	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
Less Gypsum Plant	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Revised Eligible Plant	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 323,969,979	$ 353,969,979	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
Less Accumulated Depreciation	$ (48,317,917)	$ (56,240,679)	$ (64,163,440)	$ (72,086,202)	$ (80,008,964)	$ (89,047,726)	$ (98,923,488)	$ (108,967,487)	$ (119,011,486)	$ (129,055,485)	$ (139,099,485)
Less Deferred Tax Balance	$ (18,921,296)	$ (22,023,850)	$ (25,126,403)	$ (28,228,957)	$ (31,331,510)	$ (34,871,089)	$ (38,738,438)	$ (42,671,668)	$ (46,604,898)	$ (50,538,128)	$ (54,471,358)
Environmental Compliance Rate Base	$ 216,730,766	$ 205,705,451	$ 194,680,135	$ 183,654,820	$ 172,629,505	$ 200,051,164	$ 216,308,054	$ 208,360,845	$ 194,383,616	$ 180,406,387	$ 166,429,157
Rate of Return	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
	$ 23,775,365	$ 22,565,888	$ 21,356,411	$ 20,146,934	$ 18,937,457	$ 21,945,613	$ 23,728,993	$ 22,857,185	$ 21,323,883	$ 19,790,581	$ 18,257,279
Operating Expenses	$ 28,573,949.13	$ 30,288,386.07	$ 32,105,689.24	$ 34,032,030.59	$ 36,073,952.43	$ 38,238,389.57	$ 40,532,692.95	$ 42,964,654.53	$ 45,542,533.80	$ 48,275,085.83	$ 51,171,590.97
less Gypsum to On-site Landfill	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Gypsum to Sterling	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Net Operating	$ 28,573,949	$ 30,288,386	$ 32,105,689	$ 34,032,031	$ 36,073,952	$ 38,238,390	$ 40,532,693	$ 42,964,655	$ 45,542,534	$ 48,275,086	$ 51,171,591
Annual Depreciation	$ 7,922,762	$ 7,922,762	$ 7,922,762	$ 7,922,762	$ 7,922,762	$ 9,038,762	$ 9,875,762	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999
Annual Property Tax Expense	$ 322,630	$ 367,985	$ 367,985	$ 367,985	$ 367,985	$ 367,985	$ 419,820	$ 458,696	$ 466,510	$ 466,510	$ 466,510
Total OE	$ 36,819,341	$ 38,579,133	$ 40,396,436	$ 42,322,778	$ 44,364,700	$ 47,645,137	$ 50,828,274	$ 53,467,349	$ 56,053,043	$ 58,785,595	$ 61,682,100
Total E(m) Gypsum to On-site Landfill as Calculated	$ 60,594,706	$ 61,145,021	$ 61,752,847	$ 62,469,712	$ 63,302,156	$ 69,590,749	$ 74,557,268	$ 76,324,534	$ 77,376,925	$ 78,576,175	$ 79,939,378
Total E(m) Gypsum to On-site Landfill per KU											
Calculation Check Difference											
Site E/F Hauling cost of Ash 2.25 mile round trip	$ 4,244,332	$ 4,498,992	$ 4,768,931	$ 5,055,067	$ 5,358,371	$ 5,679,873	$ 6,020,666	$ 6,381,906	$ 6,764,820	$ 7,170,709	$ 7,600,952
Haul Road Maintenance	$ 80,488	$ 85,317	$ 90,436	$ 95,862	$ 101,614	$ 107,711	$ 114,174	$ 121,024	$ 128,285	$ 135,982	$ 144,141
Total	$ 4,324,820	$ 4,584,309	$ 4,859,367	$ 5,150,929	$ 5,459,985	$ 5,787,584	$ 6,134,839	$ 6,502,930	$ 6,893,105	$ 7,306,692	$ 7,745,093
Reduce by 50% for Site M	$ 2,162,410	$ 2,292,154	$ 2,429,684	$ 2,575,465	$ 2,729,993	$ 2,893,792	$ 3,067,420	$ 3,251,465	$ 3,446,553	$ 3,653,346	$ 3,872,547
Difference	**PVRR**	**7.81% $ (21,865,903)**									

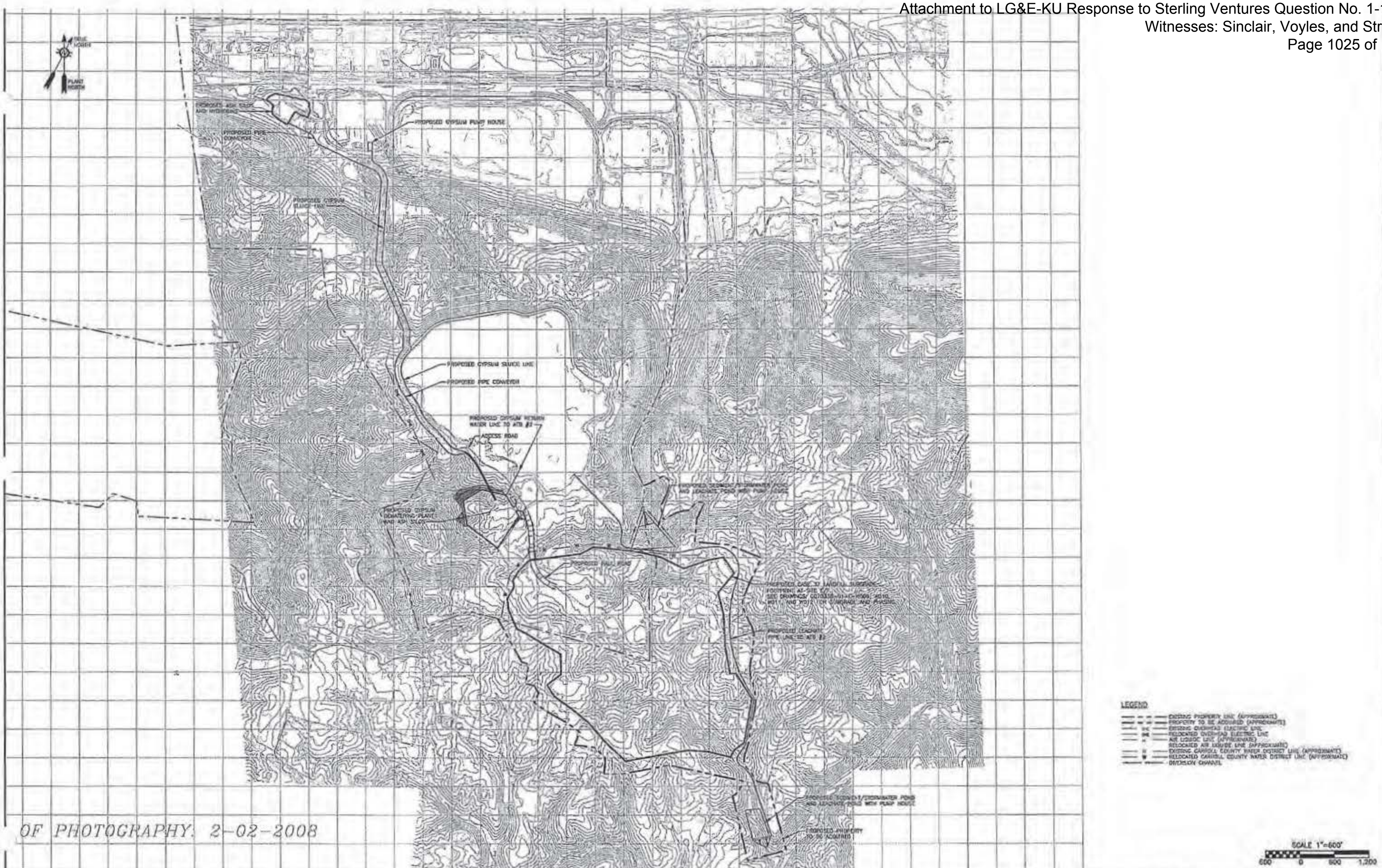
Revenue Requirments Summary
Gypsum Disposal at Sterling Materials

			2031	2032	2033	2034	2035	2036	2037	
Revenue Requirement			$ 40,000,000							
Eligible Plant			$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	
Less Gypsum Plant			$ (129,140,021)	$ (129,140,021)	$ (129,140,021)	$ (129,140,021)	$ (129,140,021)	$ (129,140,021)	$ (129,140,021)	
Revised Eligible Plant			$ 230,859,979	$ 230,859,979	$ 230,859,979	$ 230,859,979	$ 230,859,979	$ 230,859,979	$ 230,859,979	
Less Accumulated Depreciation			$ (82,684,930)	$ (89,125,923)	$ (95,566,916)	$ (102,007,909)	$ (108,448,902)	$ (114,889,895)	$ (121,330,888)	
Less Deferred Tax Balance			$ (32,379,419)	$ (34,901,711)	$ (37,424,004)	$ (39,946,297)	$ (42,468,590)	$ (44,990,883)	$ (47,513,176)	
Environmental Compliance Rate Base			$ 115,795,631	$ 106,832,345	$ 97,869,059	$ 88,905,773	$ 79,942,487	$ 70,979,202	$ 62,015,916	
Rate of Return			10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	
Assumed	Tons (1.155)	1,000,000	$ 12,702,781	$ 11,719,508	$ 10,736,236	$ 9,752,963	$ 8,769,691	$ 7,786,418	$ 6,803,146	
86.7500%	Cubic yards	867,500								
Operating Expenses			$ 54,241,886	$ 57,496,400	$ 60,946,184	$ 64,602,955	$ 68,479,132	$ 72,587,880	$ 76,943,153	
less Gypsum to On-site Landfill			$ (25,366,604)	$ (26,888,601)	$ (28,501,917)	$ (30,212,032)	$ (32,024,754)	$ (33,946,239)	$ (35,983,013)	
Gypsum to Sterling		**$ 9.00**	$ 25,689,052	$ 27,230,396	$ 28,864,219	$ 30,596,072	$ 32,431,837	$ 34,377,747	$ 36,440,412	
Net Operating			$ 54,564,334	$ 57,838,194	$ 61,308,486	$ 64,986,995	$ 68,886,215	$ 73,019,388	$ 77,400,551	
Annual Depreciation			$ 6,440,993	$ 6,440,993	$ 6,440,993	$ 6,440,993	$ 6,440,993	$ 6,440,993	$ 6,440,993	
Annual Property Tax Expense			$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	
Total OE			$ 61,471,837	$ 64,745,697	$ 68,215,989	$ 71,894,498	$ 75,793,718	$ 79,926,890	$ 84,308,054	
Total E(m) Gypsum to Sterling		$ 453,492,164	$ 74,174,618	$ 76,465,205	$ 78,952,224	$ 81,647,461	$ 84,563,408	$ 87,713,309	$ 91,111,200	$ 1,465,701,254
Total E(m) - Project 30 (See below)		$ 555,782,375	$ 81,476,372	$ 83,197,583	$ 85,114,065	$ 87,237,534	$ 89,580,409	$ 92,155,855	$ 94,977,826	$ 1,754,455,070
Difference	**PVRR**	**7.81% $ (102,290,212)**	$ (7,301,754)	$ (6,732,378)	$ (6,161,840)	$ (5,590,073)	$ (5,017,001)	$ (4,442,546)	$ (3,866,626)	$ (288,753,816)
Date			12/31/2031	12/31/2032	12/31/2033	12/31/2034	12/31/2035	12/31/2036	12/31/2037	
										$ (288,753,816)

Revenue Requirments Summary
2009 Amended Plan
Project 30 Ghent Landfill Phase I
See Exhibit B

			2031	2032	2033	2034	2035	2036	2037
Revenue Requirement									
Eligible Plant			$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
Less Gypsum Plant			$ -	$ -	$ -	$ -	$ -	$ -	$ -
Revised Eligible Plant			$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
Less Accumulated Depreciation			$ (149,143,484)	$ (159,187,483)	$ (169,231,482)	$ (179,275,482)	$ (189,319,481)	$ (199,363,480)	$ (209,407,479)
Less Deferred Tax Balance			$ (58,404,588)	$ (62,337,818)	$ (66,271,048)	$ (70,204,279)	$ (74,137,509)	$ (78,070,739)	$ (82,003,969)
Environmental Compliance Rate Base			$ 152,451,928	$ 138,474,699	$ 124,497,469	$ 110,520,240	$ 96,543,010	$ 82,565,781	$ 68,588,552
Rate of Return			10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
			$ 16,723,976	$ 15,190,674	$ 13,657,372	$ 12,124,070	$ 10,590,768	$ 9,057,466	$ 7,524,164
Operating Expenses			$ 54,241,886.43	$ 57,496,399.62	$ 60,946,183.60	$ 64,602,954.61	$ 68,479,131.89	$ 72,587,879.80	$ 76,943,152.59
less Gypsum to On-site Landfill			$ -	$ -	$ -	$ -	$ -	$ -	$ -
Gypsum to Sterling			$ -	$ -	$ -	$ -	$ -	$ -	$ -
Net Operating			$ 54,241,886	$ 57,496,400	$ 60,946,184	$ 64,602,955	$ 68,479,132	$ 72,587,880	$ 76,943,153
Annual Depreciation			$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999
Annual Property Tax Expense			$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510
Total OE			$ 64,752,395	$ 68,006,908	$ 71,456,692	$ 75,113,463	$ 78,989,641	$ 83,098,389	$ 87,453,661
Total E(m) Gypsum to On-site Landfill as Calculated			$ 81,476,372	$ 83,197,583	$ 85,114,065	$ 87,237,534	$ 89,580,409	$ 92,155,855	$ 94,977,826
Total E(m) Gypsum to On-site Landfill per KU									
Calculation Check Difference									
Site E/F	Hauling cost of Ash 2.25 mile round trip		$ 8,057,009	$ 8,540,429	$ 9,052,855	$ 9,596,026	$ 10,171,788	$ 10,782,095	$ 11,429,021
	Haul Road Maintenance		$ 152,790	$ 161,957	$ 171,675	$ 181,975	$ 192,894	$ 204,467	$ 216,735
Total			$ 8,209,799	$ 8,702,387	$ 9,224,530	$ 9,778,002	$ 10,364,682	$ 10,986,563	$ 11,645,756
Reduce by 50% for Site M			$ 4,104,899	$ 4,351,193	$ 4,612,265	$ 4,889,001	$ 5,182,341	$ 5,493,281	$ 5,822,878
Difference	**PVRR**	**7.81% $ (21,865,903)**							

EXHIBIT H



DRAWING RELEASE RECORD				
REV.	DATE	PREPARED	APPROVED	PURPOSE
A		[illegible]		Original Drawing Release

DRAWING RELEASE RECORD				
REV.	DATE	PREPARED	APPROVED	PURPOSE

gai consultants

DRAWN: TBA
CHECKED:
APPROVED:
DATE:
DASH NO. 001
PROJECT NO./DASH NO. 0070338-01
DRAWING NO. W040

SCALE 1"=600'
PROJECT NUMBER

TITLE
ASH POND AND LANDFILL PROJECT
FINAL CONCEPTUAL DESIGN
CASE 37 - OVERVIEW

KU Kentucky Utilities Company
an E.ON company

From: Straight, Scott(/O=LGE/OU=LOUISVILLE/CN=RECIPIENTS/CN=WEB/CN=SCOTTSTRAIGHT)
To: 'John Walters'; Pfeiffer, Caryl; Voyles, John; Schram, Chuck; Joyce, Jeff; Heun, Jeff; Bowling, Ralph; Sturgeon, Allyson
CC:
BCC:
Subject: RE: Ghent Landfill Beneficial Reuse
Sent: 12/14/2011 11:38:01 AM -0500 (EST)
Attachments:

Mr. Walters,

You misunderstood my comment. My comment meant that it could defer the next phase of the landfill in a few years.

Scott Straight
Director, Project Engineering
LG&E and KU Energy, LLC
(502) 627-2701
scott.straight@lge-ku.com

From: John Walters [mailto:johnwalters@sterlingventures.com]
Sent: Wednesday, December 14, 2011 11:20 AM
To: Straight, Scott; Pfeiffer, Caryl; Voyles, John; Schram, Chuck; Joyce, Jeff; Heun, Jeff; Bowling, Ralph; Sturgeon, Allyson
Subject: Ghent Landfill Beneficial Reuse

Scott

Thank you for the reply. I must admit that I am a little confused by your response, particularly that the project "could have merit in a few years to defer the next phased expansion of the landfill".

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What Sterling Ventures has proposed is that Phase 2 of the Ghent Landfill project can be delayed by eleven years, and that phase 3 of the landfill can be eliminated entirely, by diverting all gypsum using Sterling's Beneficial Reuse Permit starting when the new landfill opens. If Ghent only places ash, not gypsum, in its new landfill **from the beginning**, its life is significantly and materially extended. If you do not take advantage of Sterling's Beneficial Reuse Permit when the landfill first opens, but instead delay using the opportunity until you begin construction of phase two, KU will then be forced to build phase 2 earlier than necessary, and will most certainly be required to build phase 3.

In addition, planning now to take advantage of Sterling's permit allows KU to delay the purchase of rolling stock and equipment that would be necessary to place gypsum in the new landfill. However, as the attached PVRR analysis sheet shows, **even if** Ghent spends all of the cost to purchase and install the gypsum dewatering system and other gypsum related capital cost, it is still significantly less expensive to take advantage of Sterling's Beneficial Reuse Permit beginning in 2013 than it would be to dispose of gypsum in Ghent's landfill ($31,600,000 in PVRR savings). However, installing all of the gypsum handling equipment would seem excessive, especially given that Ghent's gypsum stacking pond could be used in the interim if installation of the gypsum handling equipment is required in the future.

We have also presented the option of purchasing hi-calcium scrubber limestone from our mine at approximately the same cost as Ghent is currently paying for its' limestone, and backhauling the limestone to Ghent, thereby further reducing the CCP disposal cost. This is potentially another $23,000,000 in PVRR saving to KU's customers. According to documents filed with the PSC, the existing contract with Mulzer Crushed Stone for Ghent's scrubber stone is a 9 year contract ending at the end of 2014, with an opt out pricing negotiating provision in 2012.

The purpose of Sterling providing the PVRR analysis comparing Project 30, with and without the beneficial reuse opportunity, was to approximate, as close as possible, the procedure that KU committed to the PSC that it would follow when presented with a current beneficial reuse opportunity with respect to the new landfills. We expected, given KU's pledge to the PSC, and the significant PVRR saving opportunities presented, that we would be able to sit down with KU to fully discuss our permit, options, limestone alternatives, costs, risks, price, contract terms and other facets of the beneficial reuse opportunity Sterling presented.

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John Walters

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Sterling Ventures, LLC

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Lexington, KY 40508

Phone (859) 259-9600

Fax (859) 259-9601

johnwalters@sterlingventures.com

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Straight, Scott Scott.Straight@lge-ku.com Dec 13 (1 day ago)
to me, Caryl, John, charles.schram, Jeff, Jeff, Ralph

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Sincerely,

Scott Straight
Director, Project Engineering
LG&E and KU Energy, LLC
(502) 627-2701
scott.straight@lge-ku.com

From: Pfeiffer, Caryl(/O=LGE/OU=LOUISVILLE/CN=RECIPIENTS/CN=E012383)
To: Joyce, Jeff
CC:
BCC:
Subject: RE: Sterling Ventures Gypsum Proposal
Sent: 01/19/2012 03:06:54 PM -0500 (EST)
Attachments:

Schram and his group we taking the lead on the PVRR analysis, so we may want to see where that is.

From: John Walters [mailto:johnwalters@sterlingventures.com]
Sent: Thursday, January 19, 2012 2:49 PM
To: Joyce, Jeff; Pfeiffer, Caryl
Cc: Alex Boone
Subject: Sterling Ventures Gypsum Proposal

Jeff

I understand from Scott Straight that you are now in charge of doing the PVRR comparative analysis of Sterling's proposal to use the new landfill at Ghent for ash only, with gypsum disposal at our underground mine. Attached is our effort at a PVRR comparative analysis of all gypsum going to Sterling, verses into your new landfill. We based our comparative PVRR analysis on the projected O&M and capital cost for the landfill that KU filed with the PSC in 2009, and confirmed in 2011.

Attached Exhibit 1 is a general summary of our proposal, as well as the assumptions used in the PVRR analysis of that proposal. Exhibits 2 and 3 are PVRR analyses under two separate scenarios. The first, Exhibit 2, is a straight PVRR comparison to the landfill, as detailed in the 2009 filings with the PSC, versus using our underground limestone mine for gypsum beneficial reuse disposal. In this scenario, our proposal is the least cost alternative by $260,498,235.00 (PVRR least cost alternative by $86,599,008.00).

Exhibit 3 is a PVRR comparison assuming KU purchases scrubber limestone from Sterling, which is then backhauled to Ghent. Here, our proposal is the least cost alternative by $342,795,003.00 (PVRR least cost alternative by $109,405,671.00). In both PVRR analyses, $222,368,117.00 of the saving comes from a reduction in Return on Equity from reduced capital costs. As you will see, Exhibit 3 assumes a delivered scrubber stone price of $8.50 ($7.00 stone with $1.50 trucking allocation out of the $4.50 round trip gypsum trucking), which based on documents filed with the PSC, should approximate the delivered cost of scrubber stone from Mulzer.

Exhibit 4 is the PVRR comparative analysis from Exhibits 2 and 3 in the table format that Charles Schram identified that you would use in your PVRR analysis of beneficial reuse opportunities.

I also understand from documents KU filed with the PSC that the landfill's CCP transport system cost may be significantly over the original projection, and that the projected capital cost of Phase I has increased from $204,000,000 to $283,000,000. Please note that the increase in the cost of Phase I has not been included in our PVRR analysis, and therefore the savings from our proposal may increase as a result of the additional capital required for Phase I.

As you can see from our projections, in addition to O&M cost savings, you can delay Phase II of the Ghent Landfill project by eleven years, and completely eliminate Phase III. You can also avoid purchasing gypsum handling equipment. However, these savings assume that all gypsum is beneficially reused at Sterling's underground mine starting with the opening of Phase I in 2013.

In Scott Straight's email to me indicating that you are now in charge of the PVRR comparative analysis, he stated that Sterling's proposal "could have merit in a few years to defer the next phased expansion of the landfill", but that "[t]he next phase of the landfill is years away…." I must admit that I am confused by Scott's conclusion. It would appear that if the ability to avoid placing gypsum in the Ghent landfill "could have merit in a few years," it also possibly has merit today. Our permit for your gypsum is approved and in place.

As indicated above, failing to take advantage of the Sterling opportunity in 2013 when the landfill opens would result in the

unnecessary purchase of gypsum related equipment, and the placement of approximately 850,000 cubic yards per year of gypsum into the landfill, thereby reducing its life. The projected savings from our proposal between 2012 and 2019 (the projected opening of Phase II) is $41,900,000.00, without backhauling limestone, and $54,941,000.00 if you take advantage of the limestone backhaul option.

If you anticipate opening the landfill in 2013, planning needs to begin immediately if you are going to take advantage of our beneficial reuse opportunity. We need to address numerous details and logistics, as well as negotiate a contract. In addition, as indicated above, the greatest saving potential for you occurs when you purchase hi-calcium scrubber limestone from Sterling. My understanding from documents filed with the PSC, the existing contract with Mulzer Crushed Stone for Ghent's scrubber limestone is a 9-year contract ending late 2014, with an "opt-out" provision in 2012. I also understand KU's normal practice is to enter into long terms contracts for scrubber stone. If you want to take full advantage of the potential savings, we would also need to negotiate a contract for limestone.

There are obviously numerous details we need to discuss in order for you to complete your own PVRR analysis of our proposal. Could you please let me know within the next couple of days if you are planning to do your PVRR analysis now, or as Scott indicated, you will be delaying that analysis for a few years?

Thank you for your consideration. I look forward to hearing from you.

John

John W. Walters, Jr.
Sterling Ventures, LLC
376 South Broadway
Lexington, KY 40508
Phone (859) 259-9600
Cell (859) 621-3990
Fax (859) 259-9601

johnwalters@sterlingventures.com

From: John Walters(johnwalters@sterlingventures.com)
To: Straight, Scott
CC: Pfeiffer, Caryl; Voyles, John; Schram, Chuck; Joyce, Jeff; Heun, Jeff; Bowling, Ralph; Sturgeon, Allyson
BCC:
Subject: Re: Ghent Landfill Beneficial Reuse
Sent: 12/14/2011 03:30:58 PM -0500 (EST)
Attachments:

Scott

I am sorry for the misunderstanding. However, I am still confused. Are you planning to wait until all gypsum related capital cost have been spent, and gypsum actually being placed in the new landfill, before sitting down and looking at when and if you really need the new landfill for gypsum, or are you planning to review Sterling's Beneficial Reuse option now to see if gypsum can be diverted off-site from the start, and related capital cost can be avoided in 2012 before the landfill opens in early 2013?

John

On Wed, Dec 14, 2011 at 11:38 AM, Straight, Scott <Scott.Straight@lge-ku.com> wrote:

> Mr. Walters,
>
> You misunderstood my comment. My comment meant that it could defer the next phase of the landfill in a few years.
>
> *Scott Straight*
> Director, Project Engineering
>
> LG&E and KU Energy, LLC
> (502) 627-2701
> scott.straight@lge-ku.com
>
> ---
>
> From: John Walters [mailto:johnwalters@sterlingventures.com]
> Sent: Wednesday, December 14, 2011 11:20 AM
> To: Straight, Scott; Pfeiffer, Caryl; Voyles, John; Schram, Chuck; Joyce, Jeff; Heun, Jeff; Bowling, Ralph; Sturgeon, Allyson
> Subject: Ghent Landfill Beneficial Reuse
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Dec 13 (1 day ago)

to me, Caryl, John, charles.schram, Jeff, Jeff, Ralph

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To: Straight, Scott; Pfeiffer, Caryl; Voyles, John; Schram, Chuck; Joyce, Jeff; Heun, Jeff; Bowling, Ralph; Sturgeon, Allyson
CC:
BCC:
Subject: Ghent Landfill Beneficial Reuse
Sent: 12/14/2011 11:20:20 AM -0500 (EST)
Attachments: Ghent Project 30 PVRR Table SV Option1 with gypsum equipment.pdf; Ghent Project 30 PVRR Table SV Option2 with gypsum equip.pdf; Ghent PVRR Phase 1 with Gypsum Equipment.xlsx; Ghent Project 30 PVRR Table SV Option2.pdf; Ghent Project 30 PVRR Table SV Option1.pdf; Ghent Project 30 PVRR Table.pdf;

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Annual Revenue Requirements - Ghent Landfill - KU Project 30 with Beneficial Reuse -Sterling Ventures Mine

This option assumes purchase of all gypsum related equipment

	Capital					O&M				Total
	Phase 1	Phase 2	Phase 3	Final Cap	Total	Non-Power	Power	Beneficial Reuse	Total O&M	
12/31/2009	480,509	-	-		480,509		84,800	-	84,800	565,309
12/31/2010	5,098,729	-	-		5,098,729		127,832	-	127,832	5,226,561
12/31/2011	11,571,793	-	-		11,571,793		198,348	-	198,348	11,770,141
12/31/2012	19,480,236	-	-		19,480,236		294,577	-	294,577	19,774,813
12/31/2013	20,326,462	-	-		20,326,462		24,380,117	930,473	25,310,590	45,637,052
12/31/2014	20,544,834	-	-		20,544,834		26,056,704	986,301	27,043,006	47,587,840
12/31/2015	19,687,280	-	-		19,687,280		27,290,868	1,045,479	28,336,347	48,023,628
12/31/2016	18,799,210	-	-		18,799,210		28,578,421	1,094,258	29,672,680	48,471,890
12/31/2017	17,948,314	-	-		17,948,314		29,956,559	1,132,851	31,089,409	49,037,723
12/31/2018	17,131,380	-	-		17,131,380		31,612,174	980,133	32,592,307	49,723,687
12/31/2019	16,268,561	-	-		16,268,561		33,594,783	608,444	34,203,227	50,471,789
12/31/2020	15,405,743	-	-		15,405,743		35,566,861	380,737	35,947,599	51,353,341
12/31/2021	14,542,924	-	-		14,542,924		38,056,766	367,033	38,423,798	52,966,722
12/31/2022	13,680,105	-	-		13,680,105		39,920,041	456,015	40,376,056	54,056,161
12/31/2023	12,817,286	-	-		12,817,286		41,890,306	550,336	42,440,641	55,257,928
12/31/2024	11,954,467	-	-		11,954,467		44,529,811	99,291	44,629,102	56,583,569
12/31/2025	11,091,649	-	-		11,091,649		47,885,193	(910,730)	46,974,463	58,066,112
12/31/2026	10,228,830	52,720	-		10,281,550		51,399,644	(1,900,443)	49,499,201	59,780,752
12/31/2027	9,366,011	156,032	-		9,522,043		54,431,913	(2,246,486)	52,185,427	61,707,470
12/31/2028	8,503,192	993,170	-		9,496,362		55,178,509	(1,897,064)	53,281,445	62,777,807
12/31/2029	7,640,374	2,639,761	-		10,280,134		57,858,589	(1,316,868)	56,541,721	66,821,855
12/31/2030	6,777,555	3,691,001	-		10,468,556		60,699,474	(868,144)	59,831,330	70,299,885
12/31/2031	5,914,736	3,904,584	-		9,819,320		63,710,812	(620,161)	63,090,651	72,909,971
12/31/2032	5,051,917	3,734,217	-		8,786,134		66,902,830	(460,808)	66,442,022	75,228,156
12/31/2033	4,189,098	3,563,850	-		7,752,949		70,286,369	(291,893)	69,994,476	77,747,424
12/31/2034	3,326,280	3,393,483	-		6,719,763		73,872,921	(112,844)	73,760,076	80,479,839
12/31/2035	2,463,461	3,223,116	-		5,686,577		77,674,665	76,948	77,751,613	83,438,190
12/31/2036	1,600,642	3,052,749	-		4,653,392		81,704,515	278,128	81,982,642	86,636,034
12/31/2037	737,823	2,882,383	-		3,620,206		85,976,155	491,378	86,467,533	90,087,739
2009 PVRR	153,383,226	5,355,077	-		158,738,303		354,316,774	2,328,121	356,644,895	515,383,198
Cubic Yards	17,350,000	7,807,500			25,157,500		25,157,500		25,157,500	25,157,500
									$/CY (PVRR)	$ 20.49

CASE	Option 30	Option 30 with Benefical Reuse
PVRR		
Capital	$ 192,717,582	$ 158,738,303
O&M	354,316,774	356,644,895
Total	$ 547,034,356	$ 515,383,198
Delta to Least Cost	**$ 31,651,158**	Least Cost
Unit Cost (2009 PVRR $/CY)	$ 21.74	$ 20.49

Annual Revenue Requirements - Ghent Landfill - KU Project 30 with Beneficial Reuse -Sterling Ventures Mine

	Capital					O&M				Total
	Phase 1	Phase 2	Phase 3	Final Cap	Total	Non-Power	Power	Beneficial Reuse	Total O&M	
12/31/2009	480,509	-	-		480,509		84,800	-	84,800	565,309
12/31/2010	3,553,056	-	-		3,553,056		127,832	-	127,832	3,680,888
12/31/2011	7,177,211	-	-		7,177,211		198,348	-	198,348	7,375,559
12/31/2012	13,654,069	-	-		13,654,069		294,577	-	294,577	13,948,646
12/31/2013	14,678,389	-	-		14,678,389		24,380,117	(489,556)	23,890,561	38,568,950
12/31/2014	15,152,993	-	-		15,152,993		26,056,704	(495,467)	25,561,237	40,714,230
12/31/2015	14,539,006	-	-		14,539,006		27,290,868	(436,289)	26,854,579	41,393,584
12/31/2016	13,883,815	-	-		13,883,815		28,578,421	(387,511)	28,190,911	42,074,725
12/31/2017	13,255,915	-	-		13,255,915		29,956,559	(348,918)	29,607,640	42,863,556
12/31/2018	12,653,016	-	-		12,653,016		31,612,174	(501,636)	31,110,538	43,763,554
12/31/2019	12,016,402	-	-		12,016,402		33,594,783	(873,325)	32,721,458	44,737,860
12/31/2020	11,379,788	-	-		11,379,788		35,566,861	(1,101,031)	34,465,830	45,845,618
12/31/2021	10,743,173	-	-		10,743,173		38,056,766	(1,114,736)	36,942,030	47,685,203
12/31/2022	10,106,559	-	-		10,106,559		39,920,041	(1,025,754)	38,894,287	49,000,846
12/31/2023	9,469,945	-	-		9,469,945		41,890,306	(931,433)	40,958,872	50,428,818
12/31/2024	8,833,331	-	-		8,833,331		44,529,811	(1,382,478)	43,147,333	51,980,664
12/31/2025	8,196,717	-	-		8,196,717		47,885,193	(2,392,499)	45,492,694	53,689,411
12/31/2026	7,560,103	52,720	-		7,612,823		51,399,644	(3,382,211)	48,017,432	55,630,256
12/31/2027	6,923,489	156,032	-		7,079,520		54,431,913	(3,728,255)	50,703,658	57,783,179
12/31/2028	6,286,875	993,170	-		7,280,044		55,178,509	(3,378,832)	51,799,676	59,079,720
12/31/2029	5,650,260	2,639,761	-		8,290,021		57,858,589	(2,798,637)	55,059,952	63,349,973
12/31/2030	5,013,646	3,691,001	-		8,704,647		60,699,474	(2,349,913)	58,349,561	67,054,208
12/31/2031	4,377,032	3,904,584	-		8,281,616		63,710,812	(2,101,930)	61,608,882	69,890,498
12/31/2032	3,740,418	3,734,217	-		7,474,635		66,902,830	(1,942,577)	64,960,253	72,434,888
12/31/2033	3,103,804	3,563,850	-		6,667,654		70,286,369	(1,773,662)	68,512,707	75,180,361
12/31/2034	2,467,190	3,393,483	-		5,860,673		73,872,921	(1,594,613)	72,278,307	78,138,980
12/31/2035	1,830,576	3,223,116	-		5,053,692		77,674,665	(1,404,821)	76,269,844	81,323,536
12/31/2036	1,193,961	3,052,749	-		4,246,711		81,704,515	(1,203,641)	80,500,873	84,747,584
12/31/2037	557,347	2,882,383	-		3,439,730		85,976,155	(990,391)	84,985,764	88,425,494
2009 PVRR	111,212,472	5,355,077	-		116,567,550		354,316,774	(10,448,976)	343,867,798	460,435,348
Cubic Yards	17,350,000	7,807,500			25,157,500		25,157,500		25,157,500	25,157,500
									$/CY (PVRR)	$ 18.30

CASE	Option 30	Option 30 with Benefical Reuse
PVRR		
Capital	$ 192,717,582	$ 116,567,550
O&M	354,316,774	343,867,798
Total	$ 547,034,356	$ 460,435,348
Delta to Least Cost	**$ 86,599,008**	Least Cost
Unit Cost (2009 PVRR $/CY)	$ 21.74	$ 18.30

NOTE-This Table Requires $9.00 Price Inserted into cell D16 of PVRR Analysis

Annual Revenue Requirements - Ghent Landfill - KU Project 30 with Beneficial Reuse -Sterling Ventures Mine With Scrubber Stone Backhaul

This option assumes purchase of all gypsum related equipment

	Capital					O&M				Total
	Phase 1	Phase 2	Phase 3	Final Cap	Total	Non-Power	Power	Beneficial Reuse	Total O&M	
12/31/2009	480,509	-	-		480,509		84,800	-	84,800	565,309
12/31/2010	5,098,729	-	-		5,098,729		127,832	-	127,832	5,226,561
12/31/2011	11,571,793	-	-		11,571,793		198,348	-	198,348	11,770,141
12/31/2012	19,480,236	-	-		19,480,236		294,577	-	294,577	19,774,813
12/31/2013	20,326,462	-	-		20,326,462		24,380,117	(569,527)	23,810,590	44,137,052
12/31/2014	20,544,834	-	-		20,544,834		26,056,704	(603,699)	25,453,006	45,997,840
12/31/2015	19,687,280	-	-		19,687,280		27,290,868	(639,921)	26,650,947	46,338,228
12/31/2016	18,799,210	-	-		18,799,210		28,578,421	(692,266)	27,886,156	46,685,366
12/31/2017	17,948,314	-	-		17,948,314		29,956,559	(760,865)	29,195,694	47,144,008
12/31/2018	17,131,380	-	-		17,131,380		31,612,174	(1,027,206)	30,584,968	47,716,348
12/31/2019	16,268,561	-	-		16,268,561		33,594,783	(1,519,335)	32,075,449	48,344,010
12/31/2020	15,405,743	-	-		15,405,743		35,566,861	(1,874,708)	33,692,153	49,097,896
12/31/2021	14,542,924	-	-		14,542,924		38,056,766	(2,023,739)	36,033,026	50,575,950
12/31/2022	13,680,105	-	-		13,680,105		39,920,041	(2,078,204)	37,841,838	51,521,943
12/31/2023	12,817,286	-	-		12,817,286		41,890,306	(2,135,936)	39,754,370	52,571,656
12/31/2024	11,954,467	-	-		11,954,467		44,529,811	(2,748,157)	41,781,654	53,736,121
12/31/2025	11,091,649	-	-		11,091,649		47,885,193	(3,929,025)	43,956,168	55,047,817
12/31/2026	10,228,830	52,720	-		10,281,550		51,399,644	(5,099,835)	46,299,809	56,581,359
12/31/2027	9,366,011	156,032	-		9,522,043		54,431,913	(5,637,842)	48,794,071	58,316,114
12/31/2028	8,503,192	993,170	-		9,496,362		55,178,509	(5,491,901)	49,686,608	59,182,970
12/31/2029	7,640,374	2,639,761	-		10,280,134		57,858,589	(5,127,395)	52,731,194	63,011,328
12/31/2030	6,777,555	3,691,001	-		10,468,556		60,699,474	(4,907,303)	55,792,171	66,260,726
12/31/2031	5,914,736	3,904,584	-		9,819,320		63,710,812	(4,901,670)	58,809,142	68,628,462
12/31/2032	5,051,917	3,734,217	-		8,786,134		66,902,830	(4,999,207)	61,903,623	70,689,757
12/31/2033	4,189,098	3,563,850	-		7,752,949		70,286,369	(5,102,597)	65,183,772	72,936,721
12/31/2034	3,326,280	3,393,483	-		6,719,763		73,872,921	(5,212,190)	68,660,731	75,380,494
12/31/2035	2,463,461	3,223,116	-		5,686,577		77,674,665	(5,328,358)	72,346,307	78,032,884
12/31/2036	1,600,642	3,052,749	-		4,653,392		81,704,515	(5,451,497)	76,253,018	80,906,409
12/31/2037	737,823	2,882,383	-		3,620,206		85,976,155	(5,582,024)	80,394,131	84,014,337
2009 PVRR	153,383,226	5,355,077	-		158,738,303		354,316,774	(20,478,541)	333,838,232	492,576,536
Cubic Yards	17,350,000	7,807,500			25,157,500		25,157,500		25,157,500	25,157,500
									$/CY (PVRR)	$ 19.58

CASE	Option 30	Option 30 with Benefical Reuse
PVRR		
Capital	$ 192,717,582	$ 158,738,303
O&M	354,316,774	333,838,232
Total	$ 547,034,356	$ 492,576,536
Delta to Least Cost	**$ 54,457,820**	Least Cost
Unit Cost (2009 PVRR $/CY)	$ 21.74	$ 19.58

NOTE-This Table Requires $9.00 Price Inserted into cell D16 of PVRR Analysis

Annual Revenue Requirements - Ghent Landfill - KU Project 30 with Beneficial Reuse -Sterling Ventures Mine With Scrubber Stone Backhaul

	Capital					O&M				Total
	Phase 1	Phase 2	Phase 3	Final Cap	Total	Non-Power	Power	Beneficial Reuse	Total O&M	
12/31/2009	480,509	-	-		480,509		84,800	-	84,800	565,309
12/31/2010	3,553,056	-	-		3,553,056		127,832	-	127,832	3,680,888
12/31/2011	7,177,211	-	-		7,177,211		198,348	-	198,348	7,375,559
12/31/2012	13,654,069	-	-		13,654,069		294,577	-	294,577	13,948,646
12/31/2013	14,678,389	-	-		14,678,389		24,380,117	(1,989,556)	22,390,561	37,068,950
12/31/2014	15,152,993	-	-		15,152,993		26,056,704	(2,085,467)	23,971,237	39,124,230
12/31/2015	14,539,006	-	-		14,539,006		27,290,868	(2,121,689)	25,169,179	39,708,184
12/31/2016	13,883,815	-	-		13,883,815		28,578,421	(2,174,035)	26,404,387	40,288,201
12/31/2017	13,255,915	-	-		13,255,915		29,956,559	(2,242,634)	27,713,925	40,969,840
12/31/2018	12,653,016	-	-		12,653,016		31,612,174	(2,508,974)	29,103,199	41,756,215
12/31/2019	12,016,402	-	-		12,016,402		33,594,783	(3,001,104)	30,593,680	42,610,081
12/31/2020	11,379,788	-	-		11,379,788		35,566,861	(3,356,477)	32,210,385	43,590,172
12/31/2021	10,743,173	-	-		10,743,173		38,056,766	(3,505,508)	34,551,257	45,294,431
12/31/2022	10,106,559	-	-		10,106,559		39,920,041	(3,559,973)	36,360,069	46,466,628
12/31/2023	9,469,945	-	-		9,469,945		41,890,306	(3,617,705)	38,272,601	47,742,546
12/31/2024	8,833,331	-	-		8,833,331		44,529,811	(4,229,926)	40,299,885	49,133,216
12/31/2025	8,196,717	-	-		8,196,717		47,885,193	(5,410,794)	42,474,399	50,671,116
12/31/2026	7,560,103	52,720	-		7,612,823		51,399,644	(6,581,604)	44,818,040	52,430,863
12/31/2027	6,923,489	156,032	-		7,079,520		54,431,913	(7,119,611)	47,312,302	54,391,823
12/31/2028	6,286,875	993,170	-		7,280,044		55,178,509	(6,973,670)	48,204,839	55,484,883
12/31/2029	5,650,260	2,639,761	-		8,290,021		57,858,589	(6,609,164)	51,249,425	59,539,446
12/31/2030	5,013,646	3,691,001	-		8,704,647		60,699,474	(6,389,072)	54,310,402	63,015,049
12/31/2031	4,377,032	3,904,584	-		8,281,616		63,710,812	(6,383,438)	57,327,373	65,608,989
12/31/2032	3,740,418	3,734,217	-		7,474,635		66,902,830	(6,480,976)	60,421,854	67,896,489
12/31/2033	3,103,804	3,563,850	-		6,667,654		70,286,369	(6,584,365)	63,702,004	70,369,657
12/31/2034	2,467,190	3,393,483	-		5,860,673		73,872,921	(6,693,958)	67,178,962	73,039,635
12/31/2035	1,830,576	3,223,116	-		5,053,692		77,674,665	(6,810,127)	70,864,538	75,918,230
12/31/2036	1,193,961	3,052,749	-		4,246,711		81,704,515	(6,933,266)	74,771,249	79,017,960
12/31/2037	557,347	2,882,383	-		3,439,730		85,976,155	(7,063,793)	78,912,362	82,352,092
2009 PVRR	111,212,472	5,355,077	-		116,567,550		354,316,774	(33,255,638)	321,061,136	437,628,685
Cubic Yards	17,350,000	7,807,500			25,157,500		25,157,500		25,157,500	25,157,500
									$/CY (PVRR)	$ 17.40

CASE	Option 30	Option 30 with Benefical Reuse
PVRR		
Capital	$ 192,717,582	$ 116,567,550
O&M	354,316,774	321,061,136
Total	$ 547,034,356	$ 437,628,685
Delta to Least Cost	**$ 109,405,671**	Least Cost
Unit Cost (2009 PVRR $/CY)	$ 21.74	$ 17.40

Annual Revenue Requirements - Ghent Landfill - KU Project 30										
	Capital					O&M				Total
	Phase 1	Phase 2	Phase 3	Final Cap	Total	Non-Power	Power	Beneficial Reuse	Total O&M	
12/31/2009	480,509	-	-		480,509		84,800		84,800	565,309
12/31/2010	5,098,729	-	-		5,098,729		127,832		127,832	5,226,561
12/31/2011	11,571,793	-	-		11,571,793		198,348		198,348	11,770,141
12/31/2012	19,480,236	-	-		19,480,236		294,577		294,577	19,774,813
12/31/2013	20,326,462	-	-		20,326,462		24,380,117		24,380,117	44,706,579
12/31/2014	20,544,834	-	-		20,544,834		26,056,704		26,056,704	46,601,539
12/31/2015	19,687,280	-	-		19,687,280		27,290,868		27,290,868	46,978,148
12/31/2016	18,799,210	52,684	-		18,851,894		28,578,421		28,578,421	47,430,316
12/31/2017	17,948,314	155,939	-		18,104,253		29,956,559		29,956,559	48,060,812
12/31/2018	17,131,380	993,170	-		18,124,550		31,612,174		31,612,174	49,736,723
12/31/2019	16,268,561	2,639,761	-		18,908,322		33,594,783		33,594,783	52,503,105
12/31/2020	15,405,743	3,691,001	-		19,096,743		35,566,861		35,566,861	54,663,605
12/31/2021	14,542,924	3,904,584	-		18,447,508		38,056,766		38,056,766	56,504,274
12/31/2022	13,680,105	3,734,217	-		17,414,322		39,920,041		39,920,041	57,334,363
12/31/2023	12,817,286	3,563,850	-		16,381,136		41,890,306		41,890,306	58,271,442
12/31/2024	11,954,467	3,393,483	2,082,456		17,430,407		44,529,811		44,529,811	61,960,218
12/31/2025	11,091,649	3,223,116	6,215,971		20,530,736		47,885,193		47,885,193	68,415,929
12/31/2026	10,228,830	3,052,749	10,179,118		23,460,698		51,399,644		51,399,644	74,860,342
12/31/2027	9,366,011	2,882,383	11,617,513		23,865,907		54,431,913		54,431,913	78,297,820
12/31/2028	8,503,192	2,712,016	11,117,397		22,332,605		55,178,509		55,178,509	77,511,114
12/31/2029	7,640,374	2,541,649	10,617,281		20,799,303		57,858,589		57,858,589	78,657,892
12/31/2030	6,777,555	2,371,282	10,117,164		19,266,001		60,699,474		60,699,474	79,965,474
12/31/2031	5,914,736	2,200,915	9,617,048		17,732,699		63,710,812		63,710,812	81,443,510
12/31/2032	5,051,917	2,030,548	9,116,931		16,199,397		66,902,830		66,902,830	83,102,226
12/31/2033	4,189,098	1,860,181	8,616,815		14,666,095		70,286,369		70,286,369	84,952,464
12/31/2034	3,326,280	1,689,814	8,116,699		13,132,793		73,872,921		73,872,921	87,005,713
12/31/2035	2,463,461	1,519,447	7,616,582		11,599,490		77,674,665		77,674,665	89,274,156
12/31/2036	1,600,642	1,349,080	7,116,466		10,066,188		81,704,515		81,704,515	91,770,703
12/31/2037	737,823	1,178,714	6,616,349		8,532,886		85,976,155		85,976,155	94,509,041
2009 PVRR	153,383,226	14,945,173	24,389,184		192,717,582		354,316,774		354,316,774	547,034,356
Cubic Yards	9,542,500	6,072,500	9,542,500		25,157,500		25,157,500		25,157,500	25,157,500
									$/CY (PVRR)	$ 21.74

	A	B	C	D	E	F	G	H	I
1	Revenue Requirments Summary								
2	Gypsum Disposal at Sterling Materials					2009	2010	2011	2012
3									
4	Revenue Requirement								
5	Eligible Plant					$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356
6	Less Gypsum Plant Requirements/Phase Delays					$ -			
7	Revised Eligible Plant					$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356
8	Less Accumulated Depreciation								
9	Less Deferred Tax Balance								
10	Environmental Compliance Rate Base					$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356
11	Rate of Return					11.1%	10.97%	10.97%	10.97%
12		Assumed	Tons (1.155)	1,000,000		$ 480,509	$ 5,098,729	$ 11,571,793	$ 19,480,236
13		86.7500%	Cubic yards	867,500					
14	Operating Expenses					$ 84,800	$ 121,349	$ 128,630	$ 136,348
15	less Gypsum to On-site Landfill								
16	Gypsum to Sterling			**$ 10.50**					
17	Net Operating					$ 84,800	$ 121,349	$ 128,630	$ 136,348
18	Annual Depreciation								
19	Annual Property Tax Expense						$ 6,483	$ 69,718	$ 158,229
20	Total OE					$ 84,800	$ 127,832	$ 198,348	$ 294,577
21									
22	Total E(m) Gypsum to Sterling				**$ 515,383,198**	$ 565,309	$ 5,226,561	$ 11,770,141	$ 19,774,813
23	Total E(m) - Project 30 (See below)				**$ 547,034,356**	$ 565,309	$ 5,226,561	$ 11,770,141	$ 19,774,813
24									
25	**Difference**		**PVRR**	**7.81%**	**$ (31,651,158)**	$ -	$ -	$ -	$ -
26	Date					12/31/2009	12/31/2010	12/31/2011	12/31/2012
27									
28	Revenue Requirments Summary								
29	2009 Amended Plan								
30	Project 30		Ghent Landfill Phase I						
31	See Exhibit B					2009	2010	2011	2012
32									
33	Revenue Requirement								
34	Eligible Plant					$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356
35	Less Gypsum Plant Requirements/Phase Delays					$ -	$ -	$ -	$ -
36	Revised Eligible Plant					$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356
37	Less Accumulated Depreciation								
38	Less Deferred Tax Balance								
39	Environmental Compliance Rate Base					$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356
40	Rate of Return					11.1%	10.97%	10.97%	10.97%
41						$ 480,509	$ 5,098,729	$ 11,571,793	$ 19,480,236
42									
43	Operating Expenses					$ 84,800	$ 121,349	$ 128,630	$ 136,348
44	less Gypsum to On-site Landfill								
45	Gypsum to Sterling								
46	Net Operating					$ 84,800	$ 121,349	$ 128,630	$ 136,348
47	Annual Depreciation								
48	Annual Property Tax Expense						$ 6,483	$ 69,718	$ 158,229

	J	K	L	M	N	O	P	Q	R	S	T	U	V
1													
2	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
3													
4													
5	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 203,078,976	$ 204,078,976	$ 212,078,976	$ 228,078,976	$ 239,078,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 262,328,976	$ 302,328,976
6				$ (500,000)	$ (1,500,000)	$ (9,500,000)	$ (25,500,000)	$ (36,500,000)	$ (40,000,000)	$ (40,000,000)	$ (40,000,000)	$ (59,750,000)	$ (99,750,000)
7	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976
8	$ (5,110,443)	$ (10,744,623)	$ (16,396,576)	$ (22,048,530)	$ (27,700,483)	$ (33,352,436)	$ (39,004,389)	$ (44,656,342)	$ (50,308,295)	$ (55,960,248)	$ (61,612,201)	$ (67,264,154)	$ (72,916,107)
9	$ (732,114)	$ (3,915,341)	$ (6,717,677)	$ (9,161,164)	$ (11,265,786)	$ (13,060,814)	$ (15,274,119)	$ (17,487,423)	$ (19,700,728)	$ (21,914,033)	$ (24,127,338)	$ (26,340,643)	$ (28,553,947)
10	$ 185,291,361	$ 187,281,989	$ 179,464,723	$ 171,369,282	$ 163,612,707	$ 156,165,726	$ 148,300,469	$ 140,435,211	$ 132,569,953	$ 124,704,695	$ 116,839,437	$ 108,974,180	$ 101,108,922
11	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
12	$ 20,326,462	$ 20,544,834	$ 19,687,280	$ 18,799,210	$ 17,948,314	$ 17,131,380	$ 16,268,561	$ 15,405,743	$ 14,542,924	$ 13,680,105	$ 12,817,286	$ 11,954,467	$ 11,091,649
13								$ 27,051	$ 661,940				
14	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,556	**$ 28,601,000**	**$ 30,979,000**	$ 32,837,740	$ 34,808,004	$ 36,896,485	$ 39,110,274
15	$ (9,569,527)	$ (10,143,699)	$ (10,752,321)	$ (11,397,460)	$ (12,081,307)	$ (12,806,186)	$ (13,574,557)	$ (14,389,030)	$ (15,252,372)	$ (16,167,515)	$ (17,137,565)	$ (18,165,819)	$ (19,255,768)
16	$ 10,500,000	$ 11,130,000	$ 11,797,800	$ 12,505,668	$ 13,256,008	$ 14,051,369	$ 14,894,451	$ 15,788,118	$ 16,735,405	$ 17,739,529	$ 18,803,901	$ 19,932,135	$ 21,128,063
17	$ 19,933,781	$ 21,129,808	$ 22,397,596	$ 23,741,452	$ 25,165,940	$ 26,675,896	$ 28,276,450	$ 30,000,087	$ 32,462,033	$ 34,409,755	$ 36,474,340	$ 38,662,800	$ 40,982,568
18	$ 5,110,443	$ 5,634,180	$ 5,651,953	$ 5,651,954	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953
19	$ 266,366	$ 279,017	$ 286,798	$ 279,274	$ 271,517	$ 264,458	$ 274,825	$ 295,558	$ 309,813	$ 314,348	$ 314,348	$ 314,348	$ 339,942
20	$ 25,310,590	$ 27,043,006	$ 28,336,347	$ 29,672,680	$ 31,089,409	$ 32,592,307	$ 34,203,227	$ 35,947,599	$ 38,423,798	$ 40,376,056	$ 42,440,641	$ 44,629,102	$ 46,974,463
21													
22	$ 45,637,052	$ 47,587,840	$ 48,023,628	$ 48,471,890	$ 49,037,723	$ 49,723,687	$ 50,471,789	$ 51,353,341	$ 52,966,722	$ 54,056,161	$ 55,257,928	$ 56,583,569	$ 58,066,112
23	$ 44,706,579	$ 46,601,539	$ 46,978,148	$ 47,430,316	$ 48,060,812	$ 49,736,723	$ 52,503,105	$ 54,663,605	$ 56,504,274	$ 57,334,363	$ 58,271,442	$ 61,960,218	$ 68,415,929
24													
25	$ 930,473	$ 986,301	$ 1,045,479	$ 1,041,574	$ 976,912	$ (13,037)	$ (2,031,317)	$ (3,310,263)	$ (3,537,551)	$ (3,278,202)	$ (3,013,515)	$ (5,376,649)	$ (10,349,817)
26	12/31/2013	12/31/2014	12/31/2015	12/31/2016	12/31/2017	12/31/2018	12/31/2019	12/31/2020	12/31/2021	12/31/2022	12/31/2023	12/31/2024	12/31/2025
27													
28													
29													
30													
31	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
32				**Start Phase II**								**Start Phase III**	
33				$ 500,000	$ 1,000,000	$ 8,000,000	$ 16,000,000	$ 11,000,000	$ 3,500,000			$ 19,750,000	$ 40,000,000
34	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 203,078,976	$ 204,078,976	$ 212,078,976	$ 228,078,976	$ 239,078,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 262,328,976	$ 302,328,976
35	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
36	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 203,078,976	$ 204,078,976	$ 212,078,976	$ 228,078,976	$ 239,078,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 262,328,976	$ 302,328,976
37	$ (5,110,443)	$ (10,744,623)	$ (16,396,576)	$ (22,062,480)	$ (27,756,283)	$ (33,673,286)	$ (40,036,689)	$ (46,706,992)	$ (53,474,945)	$ (60,242,897)	$ (67,010,850)	$ (74,329,828)	$ (82,764,806)
38	$ (732,114)	$ (3,915,341)	$ (6,717,677)	$ (9,166,960)	$ (11,288,480)	$ (13,186,459)	$ (15,678,367)	$ (18,290,458)	$ (20,940,788)	$ (23,591,119)	$ (26,241,449)	$ (29,107,561)	$ (32,410,698)
39	$ 185,291,361	$ 187,281,989	$ 179,464,723	$ 171,849,536	$ 165,034,213	$ 165,219,232	$ 172,363,920	$ 174,081,526	$ 168,163,243	$ 158,744,960	$ 149,326,677	$ 158,891,587	$ 187,153,472
40	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
41	$ 20,326,462	$ 20,544,834	$ 19,687,280	$ 18,851,894	$ 18,104,253	$ 18,124,550	$ 18,908,322	$ 19,096,743	$ 18,447,508	$ 17,414,322	$ 16,381,136	$ 17,430,407	$ 20,530,736
42								$ 27,051	$ 661,940				
43	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,556	**$ 28,601,000**	**$ 30,979,000**	$ 32,837,740	$ 34,808,004	$ 36,896,485	$ 39,110,274
44	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
45	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
46	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,556	$ 28,601,000	$ 30,979,000	$ 32,837,740	$ 34,808,004	$ 36,896,485	$ 39,110,274
47	$ 5,110,443	$ 5,634,180	$ 5,651,953	$ 5,665,904	$ 5,693,803	$ 5,917,003	$ 6,363,403	$ 6,670,303	$ 6,767,953	$ 6,767,953	$ 6,767,953	$ 7,318,978	$ 8,434,978
48	$ 266,366	$ 279,017	$ 286,798	$ 279,274	$ 271,517	$ 264,458	$ 274,825	$ 295,558	$ 309,813	$ 314,348	$ 314,348	$ 314,348	$ 339,942

	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH
1												
2	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037
3	**Start Phase II**											
4	$ 500,000	$ 1,000,000	$ 8,000,000	$ 16,000,000	$ 11,000,000	$ 3,500,000						
5	$ 342,328,976	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
6	$ (139,250,000)	$ (155,921,024)	$ (147,921,024)	$ (131,921,024)	$ (120,921,024)	$ (117,421,024)	$ (117,421,024)	$ (117,421,024)	$ (117,421,024)	$ (117,421,024)	$ (117,421,024)	$ (117,421,024)
7	$ 203,078,976	$ 204,078,976	$ 212,078,976	$ 228,078,976	$ 239,078,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976
8	$ (78,582,010)	$ (84,275,813)	$ (90,192,816)	$ (96,556,219)	$ (103,226,522)	$ (109,994,475)	$ (116,762,428)	$ (123,530,381)	$ (130,298,334)	$ (137,066,286)	$ (143,834,239)	$ (150,602,192)
9	$ (30,772,715)	$ (33,002,408)	$ (35,319,507)	$ (37,811,415)	$ (40,423,506)	$ (43,073,836)	$ (45,724,167)	$ (48,374,497)	$ (51,024,827)	$ (53,675,158)	$ (56,325,488)	$ (58,975,819)
10	$ 93,724,251	$ 86,800,755	$ 86,566,653	$ 93,711,342	$ 95,428,948	$ 89,510,665	$ 80,092,382	$ 70,674,098	$ 61,255,815	$ 51,837,532	$ 42,419,248	$ 33,000,965
11	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
12	$ 10,281,550	$ 9,522,043	$ 9,496,362	$ 10,280,134	$ 10,468,556	$ 9,819,320	$ 8,786,134	$ 7,752,949	$ 6,719,763	$ 5,686,577	$ 4,653,392	$ 3,620,206
13			$ (1,912,962)									
14	$ 41,456,890	$ 43,944,304	**$ 44,668,000**	$ 47,348,080	$ 50,188,965	$ 53,200,303	$ 56,392,321	$ 59,775,860	$ 63,362,412	$ 67,164,156	$ 71,194,006	$ 75,465,646
15	$ (20,411,115)	$ (21,635,781)	$ (22,933,928)	$ (24,309,964)	$ (25,768,562)	$ (27,314,676)	$ (28,953,556)	$ (30,690,769)	$ (32,532,216)	$ (34,484,149)	$ (36,553,198)	$ (38,746,389)
16	$ 22,395,747	$ 23,739,492	$ 25,163,861	$ 26,673,693	$ 28,274,114	$ 29,970,561	$ 31,768,795	$ 33,674,922	$ 35,695,418	$ 37,837,143	$ 40,107,371	$ 42,513,814
17	$ 43,441,522	$ 46,048,014	$ 46,897,933	$ 49,711,809	$ 52,694,517	$ 55,856,188	$ 59,207,559	$ 62,760,013	$ 66,525,614	$ 70,517,151	$ 74,748,180	$ 79,233,071
18	$ 5,665,903	$ 5,693,803	$ 5,917,003	$ 6,363,403	$ 6,670,303	$ 6,767,953	$ 6,767,953	$ 6,767,953	$ 6,767,953	$ 6,767,953	$ 6,767,953	$ 6,767,953
19	$ 391,776	$ 443,610	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510
20	$ 49,499,201	$ 52,185,427	$ 53,281,445	$ 56,541,721	$ 59,831,330	$ 63,090,651	$ 66,442,022	$ 69,994,476	$ 73,760,076	$ 77,751,613	$ 81,982,642	$ 86,467,533
21												
22	$ 59,780,752	$ 61,707,470	$ 62,777,807	$ 66,821,855	$ 70,299,885	$ 72,909,971	$ 75,228,156	$ 77,747,424	$ 80,479,839	$ 83,438,190	$ 86,636,034	$ 90,087,739
23	$ 74,860,342	$ 78,297,820	$ 77,511,114	$ 78,657,892	$ 79,965,474	$ 81,443,510	$ 83,102,226	$ 84,952,464	$ 87,005,713	$ 89,274,156	$ 91,770,703	$ 94,509,041
24												
25	$ (15,079,590)	$ (16,590,350)	$ (14,733,307)	$ (11,836,036)	$ (9,665,589)	$ (8,533,540)	$ (7,874,070)	$ (7,205,039)	$ (6,525,874)	$ (5,835,965)	$ (5,134,669)	$ (4,421,302)
26	12/31/2026	12/31/2027	12/31/2028	12/31/2029	12/31/2030	12/31/2031	12/31/2032	12/31/2033	12/31/2034	12/31/2035	12/31/2036	12/31/2037
27												
28												
29												
30												
31	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037
32												
33	$ 40,000,000	$ 17,671,024										
34	$ 342,328,976	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
35	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
36	$ 342,328,976	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
37	$ (92,315,784)	$ (102,359,783)	$ (112,403,782)	$ (122,447,782)	$ (132,491,781)	$ (142,535,780)	$ (152,579,779)	$ (162,623,779)	$ (172,667,778)	$ (182,711,777)	$ (192,755,777)	$ (202,799,776)
38	$ (36,150,861)	$ (40,084,091)	$ (44,017,321)	$ (47,950,551)	$ (51,883,781)	$ (55,817,012)	$ (59,750,242)	$ (63,683,472)	$ (67,616,702)	$ (71,549,932)	$ (75,483,162)	$ (79,416,392)
39	$ 213,862,331	$ 217,556,126	$ 203,578,896	$ 189,601,667	$ 175,624,438	$ 161,647,208	$ 147,669,979	$ 133,692,750	$ 119,715,520	$ 105,738,291	$ 91,761,061	$ 77,783,832
40	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
41	$ 23,460,698	$ 23,865,907	$ 22,332,605	$ 20,799,303	$ 19,266,001	$ 17,732,699	$ 16,199,397	$ 14,666,095	$ 13,132,793	$ 11,599,490	$ 10,066,188	$ 8,532,886
42			$ (1,912,962)									
43	$ 41,456,890	$ 43,944,304	**$ 44,668,000**	$ 47,348,080	$ 50,188,965	$ 53,200,303	$ 56,392,321	$ 59,775,860	$ 63,362,412	$ 67,164,156	$ 71,194,006	$ 75,465,646
44	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
45	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
46	$ 41,456,890	$ 43,944,304	$ 44,668,000	$ 47,348,080	$ 50,188,965	$ 53,200,303	$ 56,392,321	$ 59,775,860	$ 63,362,412	$ 67,164,156	$ 71,194,006	$ 75,465,646
47	$ 9,550,978	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999
48	$ 391,776	$ 443,610	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510

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12	$ 343,916,469
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22	$ 1,592,489,388
23	$ 1,731,854,332
24	
25	**$ (139,364,944)**
26	
27	$ (139,364,944)
28	
29	
30	
31	
32	
33	$ 117,421,024
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41	$ 482,133,777
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	A	B	C	D	E	F	G	H	I
49	Total OE					$ 84,800	$ 127,832	$ 198,348	$ 294,577
50									
51	Total E(m) Gypsum to On-site Landfill as Calculated				**547,034,356**	$ 565,309	$ 5,226,561	$ 11,770,141	$ 19,774,813
52	Total E(m) Gypsum to On-site Landfill per KU					$ 565,309	$ 5,226,225	$ 11,769,378	$ 19,773,528
53									
54	Calculation Check Difference					$ -	$ 336	$ 763	$ 1,285
55									
56									
57	Site E/F	Hauling cost of Ash 2.25 mile round trip							
58		Haul Road Maintenance							
59	Total								
60	Reduce by 50% for Site M					$ -	$ -	$ -	$ -
61	**Difference**		**PVRR**	**7.81%**	**$ (21,865,903)**				

	J	K	L	M	N	O	P	Q	R	S	T	U	V
49	$ 24,380,117	$ 26,056,704	$ 27,290,868	$ 28,578,421	$ 29,956,559	$ 31,612,174	$ 33,594,783	$ 35,566,861	$ 38,056,766	$ 39,920,041	$ 41,890,306	$ 44,529,811	$ 47,885,193
50													
51	$ 44,706,579	$ 46,601,539	$ 46,978,148	$ 47,430,316	$ 48,060,812	$ 49,736,723	$ 52,503,105	$ 54,663,605	$ 56,504,274	$ 57,334,363	$ 58,271,442	$ 61,960,218	$ 68,415,929
52	$ 44,705,239	$ 46,600,208	$ 46,976,843	$ 47,458,553	$ 48,044,547	$ 48,653,648							
53													
54	$ 1,340	$ 1,331	$ 1,305	$ (28,237)	$ 16,265	$ 1,083,075							
55													
56													
57	$ 2,822,723	$ 2,992,086	$ 3,171,612	$ 3,361,908	$ 3,563,623	$ 3,777,440	$ 4,004,087	$ 4,244,332	$ 4,498,992	$ 4,768,931	$ 5,055,067	$ 5,358,371	$ 5,679,873
58	$ 53,529	$ 56,741	$ 60,145	$ 63,754	$ 67,579	$ 71,634	$ 75,932	$ 80,488	$ 85,317	$ 90,436	$ 95,862	$ 101,614	$ 107,711
59	$ 2,876,252	$ 3,048,827	$ 3,231,757	$ 3,425,662	$ 3,631,202	$ 3,849,074	$ 4,080,018	$ 4,324,820	$ 4,584,309	$ 4,859,367	$ 5,150,929	$ 5,459,985	$ 5,787,584
60	$ 1,438,126	$ 1,524,414	$ 1,615,878	$ 1,712,831	$ 1,815,601	$ 1,924,537	$ 2,040,009	$ 2,162,410	$ 2,292,154	$ 2,429,684	$ 2,575,465	$ 2,729,993	$ 2,893,792
61													

	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH
49	$ 51,399,644	$ 54,431,913	$ 55,178,509	$ 57,858,589	$ 60,699,474	$ 63,710,812	$ 66,902,830	$ 70,286,369	$ 73,872,921	$ 77,674,665	$ 81,704,515	$ 85,976,155
50												
51	$ 74,860,342	$ 78,297,820	$ 77,511,114	$ 78,657,892	$ 79,965,474	$ 81,443,510	$ 83,102,226	$ 84,952,464	$ 87,005,713	$ 89,274,156	$ 91,770,703	$ 94,509,041
52												
53												
54												
55												
56												
57	$ 6,020,666	$ 6,381,906	$ 6,764,820	$ 7,170,709	$ 7,600,952	$ 8,057,009	$ 8,540,429	$ 9,052,855	$ 9,596,026	$ 10,171,788	$ 10,782,095	$ 11,429,021
58	$ 114,174	$ 121,024	$ 128,285	$ 135,982	$ 144,141	$ 152,790	$ 161,957	$ 171,675	$ 181,975	$ 192,894	$ 204,467	$ 216,735
59	$ 6,134,839	$ 6,502,930	$ 6,893,105	$ 7,306,692	$ 7,745,093	$ 8,209,799	$ 8,702,387	$ 9,224,530	$ 9,778,002	$ 10,364,682	$ 10,986,563	$ 11,645,756
60	$ 3,067,420	$ 3,251,465	$ 3,446,553	$ 3,653,346	$ 3,872,547	$ 4,104,899	$ 4,351,193	$ 4,612,265	$ 4,889,001	$ 5,182,341	$ 5,493,281	$ 5,822,878
61												

	AI
49	$ 1,249,720,555
50	
51	$ 1,731,854,332
52	
53	
54	
55	
56	
57	
58	
59	
60	
61	

Cell: D16
Comment: John Walters:
Insert $9.00 for Limestone Backhaul calculation

	A	B	C	D	E	F	G	H	I
1		**Annual Revenue Requirements - Ghent Landfill - KU Project 30**							
2									
3		Capital					O&M		
4									
5									Beneficial
6		Phase 1	Phase 2	Phase 3	Final Cap	Total	Non-Power	Power	Reuse
7	12/31/2009	480,509	-	-		480,509		84,800	
8	12/31/2010	5,098,729	-	-		5,098,729		127,832	
9	12/31/2011	11,571,793	-	-		11,571,793		198,348	
10	12/31/2012	19,480,236	-	-		19,480,236		294,577	
11	12/31/2013	20,326,462	-	-		20,326,462		24,380,117	
12	12/31/2014	20,544,834	-	-		20,544,834		26,056,704	
13	12/31/2015	19,687,280	-	-		19,687,280		27,290,868	
14	12/31/2016	18,799,210	52,684	-		18,851,894		28,578,421	
15	12/31/2017	17,948,314	155,939	-		18,104,253		29,956,559	
16	12/31/2018	17,131,380	993,170	-		18,124,550		31,612,174	
17	12/31/2019	16,268,561	2,639,761	-		18,908,322		33,594,783	
18	12/31/2020	15,405,743	3,691,001	-		19,096,743		35,566,861	
19	12/31/2021	14,542,924	3,904,584	-		18,447,508		38,056,766	
20	12/31/2022	13,680,105	3,734,217	-		17,414,322		39,920,041	
21	12/31/2023	12,817,286	3,563,850	-		16,381,136		41,890,306	
22	12/31/2024	11,954,467	3,393,483	2,082,456		17,430,407		44,529,811	
23	12/31/2025	11,091,649	3,223,116	6,215,971		20,530,736		47,885,193	
24	12/31/2026	10,228,830	3,052,749	10,179,118		23,460,698		51,399,644	
25	12/31/2027	9,366,011	2,882,383	11,617,513		23,865,907		54,431,913	
26	12/31/2028	8,503,192	2,712,016	11,117,397		22,332,605		55,178,509	
27	12/31/2029	7,640,374	2,541,649	10,617,281		20,799,303		57,858,589	
28	12/31/2030	6,777,555	2,371,282	10,117,164		19,266,001		60,699,474	
29	12/31/2031	5,914,736	2,200,915	9,617,048		17,732,699		63,710,812	
30	12/31/2032	5,051,917	2,030,548	9,116,931		16,199,397		66,902,830	
31	12/31/2033	4,189,098	1,860,181	8,616,815		14,666,095		70,286,369	
32	12/31/2034	3,326,280	1,689,814	8,116,699		13,132,793		73,872,921	
33	12/31/2035	2,463,461	1,519,447	7,616,582		11,599,490		77,674,665	

	J	K
1		
2		
3		Total
4		
5	Total	
6	O&M	
7	84,800	565,309
8	127,832	5,226,561
9	198,348	11,770,141
10	294,577	19,774,813
11	24,380,117	44,706,579
12	26,056,704	46,601,539
13	27,290,868	46,978,148
14	28,578,421	47,430,316
15	29,956,559	48,060,812
16	31,612,174	49,736,723
17	33,594,783	52,503,105
18	35,566,861	54,663,605
19	38,056,766	56,504,274
20	39,920,041	57,334,363
21	41,890,306	58,271,442
22	44,529,811	61,960,218
23	47,885,193	68,415,929
24	51,399,644	74,860,342
25	54,431,913	78,297,820
26	55,178,509	77,511,114
27	57,858,589	78,657,892
28	60,699,474	79,965,474
29	63,710,812	81,443,510
30	66,902,830	83,102,226
31	70,286,369	84,952,464
32	73,872,921	87,005,713
33	77,674,665	89,274,156

	A	B	C	D	E	F	G	H	I
34	12/31/2036	1,600,642	1,349,080	7,116,466		10,066,188		81,704,515	
35	12/31/2037	737,823	1,178,714	6,616,349		8,532,886		85,976,155	
36	2009 PVRR	153,383,226	14,945,173	24,389,184		192,717,582		354,316,774	
37									
38	Cubic Yards	9,542,500	6,072,500	9,542,500		25,157,500		25,157,500	
39									

	J	K
34	81,704,515	91,770,703
35	85,976,155	94,509,041
36	354,316,774	547,034,356
37		
38	25,157,500	25,157,500
39	$/CY (PVRR)	$ 21.74

	A	B	C	D	E	F	G	H
1		**Annual Revenue Requirements - Ghent Landfill - KU Project 30 with Beneficial Reuse -S**						
2					his option assumes purchase of all gypsum related equipme			
3		Capital					O&	
4								
5								
6		Phase 1	Phase 2	Phase 3	Final Cap	Total	Non-Power	Power
7	12/31/2009	480,509	-	-		480,509		84,800
8	12/31/2010	5,098,729	-	-		5,098,729		127,832
9	12/31/2011	11,571,793	-	-		11,571,793		198,348
10	12/31/2012	19,480,236	-	-		19,480,236		294,577
11	12/31/2013	20,326,462	-	-		20,326,462		24,380,117
12	12/31/2014	20,544,834	-	-		20,544,834		26,056,704
13	12/31/2015	19,687,280	-	-		19,687,280		27,290,868
14	12/31/2016	18,799,210	-	-		18,799,210		28,578,421
15	12/31/2017	17,948,314	-	-		17,948,314		29,956,559
16	12/31/2018	17,131,380	-	-		17,131,380		31,612,174
17	12/31/2019	16,268,561	-	-		16,268,561		33,594,783
18	12/31/2020	15,405,743	-	-		15,405,743		35,566,861
19	12/31/2021	14,542,924	-	-		14,542,924		38,056,766
20	12/31/2022	13,680,105	-	-		13,680,105		39,920,041
21	12/31/2023	12,817,286	-	-		12,817,286		41,890,306
22	12/31/2024	11,954,467	-	-		11,954,467		44,529,811
23	12/31/2025	11,091,649	-	-		11,091,649		47,885,193
24	12/31/2026	10,228,830	52,720	-		10,281,550		51,399,644
25	12/31/2027	9,366,011	156,032	-		9,522,043		54,431,913
26	12/31/2028	8,503,192	993,170	-		9,496,362		55,178,509
27	12/31/2029	7,640,374	2,639,761	-		10,280,134		57,858,589
28	12/31/2030	6,777,555	3,691,001	-		10,468,556		60,699,474
29	12/31/2031	5,914,736	3,904,584	-		9,819,320		63,710,812
30	12/31/2032	5,051,917	3,734,217	-		8,786,134		66,902,830
31	12/31/2033	4,189,098	3,563,850	-		7,752,949		70,286,369
32	12/31/2034	3,326,280	3,393,483	-		6,719,763		73,872,921
33	12/31/2035	2,463,461	3,223,116	-		5,686,577		77,674,665

	I	J	K
1	**terling Ventures Mine**		
2			
3	&M		Total
4			
5	Beneficial	Total	
6	Reuse	O&M	
7	-	84,800	565,309
8	-	127,832	5,226,561
9	-	198,348	11,770,141
10	-	294,577	19,774,813
11	930,473	25,310,590	45,637,052
12	986,301	27,043,006	47,587,840
13	1,045,479	28,336,347	48,023,628
14	1,094,258	29,672,680	48,471,890
15	1,132,851	31,089,409	49,037,723
16	980,133	32,592,307	49,723,687
17	608,444	34,203,227	50,471,789
18	380,737	35,947,599	51,353,341
19	367,033	38,423,798	52,966,722
20	456,015	40,376,056	54,056,161
21	550,336	42,440,641	55,257,928
22	99,291	44,629,102	56,583,569
23	(910,730)	46,974,463	58,066,112
24	(1,900,443)	49,499,201	59,780,752
25	(2,246,486)	52,185,427	61,707,470
26	(1,897,064)	53,281,445	62,777,807
27	(1,316,868)	56,541,721	66,821,855
28	(868,144)	59,831,330	70,299,885
29	(620,161)	63,090,651	72,909,971
30	(460,808)	66,442,022	75,228,156
31	(291,893)	69,994,476	77,747,424
32	(112,844)	73,760,076	80,479,839
33	76,948	77,751,613	83,438,190

	A	B	C	D	E	F	G	H
34	12/31/2036	1,600,642	3,052,749	-		4,653,392		81,704,515
35	12/31/2037	737,823	2,882,383	-		3,620,206		85,976,155
36	2009 PVRR	153,383,226	5,355,077	-		158,738,303		354,316,774
37								
38	Cubic Yards	17,350,000	7,807,500			25,157,500		25,157,500
39								
40				Option 30 with				
41	CASE		Option 30	Benefical Reuse				
42	PVRR							
43	Capital		$ 192,717,582	$ 158,738,303				
44	O&M		354,316,774	356,644,895				
45	Total		$ 547,034,356	$ 515,383,198				
46	Delta to Least Cost		**$ 31,651,158**	Least Cost				
47								
48	Unit Cost (2009 PVRR $/CY)		$ 21.74	$ 20.49				

	I	J	K
34	278,128	81,982,642	86,636,034
35	491,378	86,467,533	90,087,739
36	2,328,121	356,644,895	515,383,198
37			
38		25,157,500	25,157,500
39		$/CY (PVRR)	$ 20.49
40			
41			
42			
43			
44			
45			
46			
47			
48			

	A	B	C	D	E	F	G	H
1	NOTE-This Table	**Annual Revenue Requirements - Ghent Landfill - KU Project 30 with Beneficial Reuse -Sterling Ventures**						
2	Requires $9.00				his option assumes purchase of all gypsum related equipme			
3	Price Inserted	Capital					O&	
4	into cell D16 of							
5	PVRR Analysis							
6		Phase 1	Phase 2	Phase 3	Final Cap	Total	Non-Power	Power
7	12/31/2009	480,509	-	-		480,509		84,800
8	12/31/2010	5,098,729	-	-		5,098,729		127,832
9	12/31/2011	11,571,793	-	-		11,571,793		198,348
10	12/31/2012	19,480,236	-	-		19,480,236		294,577
11	12/31/2013	20,326,462	-	-		20,326,462		24,380,117
12	12/31/2014	20,544,834	-	-		20,544,834		26,056,704
13	12/31/2015	19,687,280	-	-		19,687,280		27,290,868
14	12/31/2016	18,799,210	-	-		18,799,210		28,578,421
15	12/31/2017	17,948,314	-	-		17,948,314		29,956,559
16	12/31/2018	17,131,380	-	-		17,131,380		31,612,174
17	12/31/2019	16,268,561	-	-		16,268,561		33,594,783
18	12/31/2020	15,405,743	-	-		15,405,743		35,566,861
19	12/31/2021	14,542,924	-	-		14,542,924		38,056,766
20	12/31/2022	13,680,105	-	-		13,680,105		39,920,041
21	12/31/2023	12,817,286	-	-		12,817,286		41,890,306
22	12/31/2024	11,954,467	-	-		11,954,467		44,529,811
23	12/31/2025	11,091,649	-	-		11,091,649		47,885,193
24	12/31/2026	10,228,830	52,720	-		10,281,550		51,399,644
25	12/31/2027	9,366,011	156,032	-		9,522,043		54,431,913
26	12/31/2028	8,503,192	993,170	-		9,496,362		55,178,509
27	12/31/2029	7,640,374	2,639,761	-		10,280,134		57,858,589
28	12/31/2030	6,777,555	3,691,001	-		10,468,556		60,699,474
29	12/31/2031	5,914,736	3,904,584	-		9,819,320		63,710,812
30	12/31/2032	5,051,917	3,734,217	-		8,786,134		66,902,830
31	12/31/2033	4,189,098	3,563,850	-		7,752,949		70,286,369
32	12/31/2034	3,326,280	3,393,483	-		6,719,763		73,872,921
33	12/31/2035	2,463,461	3,223,116	-		5,686,577		77,674,665

	I	J	K
1	**Mine With Scrubber Stone Backhaul**		
2			
3	&M		Total
4			
5	Beneficial	Total	
6	Reuse	O&M	
7	-	84,800	565,309
8	-	127,832	5,226,561
9	-	198,348	11,770,141
10	-	294,577	19,774,813
11	930,473	25,310,590	45,637,052
12	986,301	27,043,006	47,587,840
13	1,045,479	28,336,347	48,023,628
14	1,094,258	29,672,680	48,471,890
15	1,132,851	31,089,409	49,037,723
16	980,133	32,592,307	49,723,687
17	608,444	34,203,227	50,471,789
18	380,737	35,947,599	51,353,341
19	367,033	38,423,798	52,966,722
20	456,015	40,376,056	54,056,161
21	550,336	42,440,641	55,257,928
22	99,291	44,629,102	56,583,569
23	(910,730)	46,974,463	58,066,112
24	(1,900,443)	49,499,201	59,780,752
25	(2,246,486)	52,185,427	61,707,470
26	(1,897,064)	53,281,445	62,777,807
27	(1,316,868)	56,541,721	66,821,855
28	(868,144)	59,831,330	70,299,885
29	(620,161)	63,090,651	72,909,971
30	(460,808)	66,442,022	75,228,156
31	(291,893)	69,994,476	77,747,424
32	(112,844)	73,760,076	80,479,839
33	76,948	77,751,613	83,438,190

	A	B	C	D	E	F	G	H
34	12/31/2036	1,600,642	3,052,749	-		4,653,392		81,704,515
35	12/31/2037	737,823	2,882,383	-		3,620,206		85,976,155
36	2009 PVRR	153,383,226	5,355,077	-		158,738,303		354,316,774
37								
38	Cubic Yards	17,350,000	7,807,500			25,157,500		25,157,500
39								
40				Option 30 with				
41	CASE		Option 30	Benefical Reuse				
42	PVRR							
43	Capital		$ 192,717,582	$ 158,738,303				
44	O&M		354,316,774	356,644,895				
45	Total		$ 547,034,356	$ 515,383,198				
46	Delta to Least Cost		**$ 31,651,158**	Least Cost				
47								
48	Unit Cost (2009 PVRR $/CY)		$ 21.74	$ 20.49				

	I	J	K
34	278,128	81,982,642	86,636,034
35	491,378	86,467,533	90,087,739
36	2,328,121	356,644,895	515,383,198
37			
38		25,157,500	25,157,500
39		$/CY (PVRR)	$ 20.49
40			
41			
42			
43			
44			
45			
46			
47			
48			

	A	B	C	D	E	F	G	H	I
1		Dry	Gypsum	Gypsum	Operation and	Phase II	Phase III	Total	Hauling
2		Gypsum	Fines	Dewatering	Maintenance	Construction	Construction	Capital Cost	Gypsum to
3		Handling	Project	Facility	Dry Gypsum				Landfill
4		System		Earthwork	Handling				
5					System				
6									
7	12/31/2010	$ 7,790,000	$ 6,300,000	$ -	$ -	$ -	$ -	$ 14,090,000	$ -
8	12/31/2011	$ 15,960,000	$ 6,300,000	$ 371,000	$ -	$ -	$ -	$ 22,631,000	$ -
9	12/30/2012	$ 13,050,000	$ -	$ -	$ -	$ -	$ -	$ 13,050,000	$ -
10	12/30/2013	$ -	$ -	$ -	$ 682,495	$ -	$ -	$ 682,495	$ 8,887,032
11	12/30/2014	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 9,420,254
12	12/30/2015	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 9,985,469
13	12/29/2016	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 10,584,598
14	12/29/2017	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 11,219,674
15	12/29/2018	$ -	$ -	$ -	$ -	$ 40,000,000	$ -	$ 40,000,000	$ 11,892,854
16	12/29/2019	$ -	$ -	$ -	$ -	$ 20,000,000	$ -	$ 20,000,000	$ 12,606,426
17	12/28/2020	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 13,362,811
18	12/28/2021	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 14,164,580
19	12/28/2022	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 15,014,455
20	12/28/2023	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 15,915,322
21	12/27/2024	$ -	$ -	$ -	$ -	$ -	$ 40,000,000	$ 40,000,000	$ 16,870,241
22	12/27/2025	$ -	$ -	$ -	$ -	$ -	$ 40,000,000	$ 40,000,000	$ 17,882,456
23	12/27/2026	$ -	$ -	$ -	$ -	$ -	$ 20,000,000	$ 20,000,000	$ 18,955,403
24	12/27/2027	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 20,092,727
25	12/26/2028	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 21,298,291
26	12/26/2029	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 22,576,188
27	12/26/2030	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 23,930,760
28	12/26/2031	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 25,366,605
29	12/25/2032	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 26,888,602
30	12/25/2033	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 28,501,918
31	12/25/2034	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 30,212,033
32	12/25/2035	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 32,024,755

	J	K	L	M	N	O
1	Total	Discount	Haul	Phase III		Discount
2	Cost Gypsum	Rate	Gypsum	Construction		Rate
3	to Ghent	6.70%	to Sterling			6.70%
4	Landfill					
5						
6		PVRR				PVRR
7	$ 14,090,000	$ 289,828,563	$ -	$ -	$ -	$ 252,258,836
8	$ 22,631,000		$ -	$ -	$ -	
9	$ 13,050,000		$ -	$ -	$ -	
10	$ 9,569,527		$ 11,236,000	$ -	$ 11,236,000	
11	$ 9,420,254		$ 11,910,160	$ -	$ 11,910,160	
12	$ 9,985,469		$ 12,624,770	$ -	$ 12,624,770	
13	$ 10,584,598		$ 13,382,256	$ -	$ 13,382,256	
14	$ 11,219,674		$ 14,185,191	$ -	$ 14,185,191	
15	$ 51,892,854		$ 15,036,303	$ -	$ 15,036,303	
16	$ 32,606,426		$ 15,938,481	$ -	$ 15,938,481	
17	$ 13,362,811		$ 16,894,790	$ -	$ 16,894,790	
18	$ 14,164,580		$ 17,908,477	$ -	$ 17,908,477	
19	$ 15,014,455		$ 18,982,986	$ -	$ 18,982,986	
20	$ 15,915,322		$ 20,121,965	$ -	$ 20,121,965	
21	$ 56,870,241		$ 21,329,283	$ 40,000,000	$ 61,329,283	
22	$ 57,882,456		$ 22,609,040	$ 40,000,000	$ 62,609,040	
23	$ 38,955,403		$ 23,965,582	$ 20,000,000	$ 43,965,582	
24	$ 20,092,727		$ 25,403,517	$ -	$ 25,403,517	
25	$ 21,298,291		$ 26,927,728	$ -	$ 26,927,728	
26	$ 22,576,188		$ 28,543,392	$ -	$ 28,543,392	
27	$ 23,930,760		$ 30,255,995	$ -	$ 30,255,995	
28	$ 25,366,605		$ 32,071,355	$ -	$ 32,071,355	
29	$ 26,888,602		$ 33,995,636	$ -	$ 33,995,636	
30	$ 28,501,918		$ 36,035,374	$ -	$ 36,035,374	
31	$ 30,212,033		$ 38,197,497	$ -	$ 38,197,497	
32	$ 32,024,755		$ 40,489,346	$ -	$ 40,489,346	

	A	B	C	D	E	F	G	H	I
33	12/24/2036	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 33,946,240
34	12/24/2037	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 35,983,014
35		$ 36,800,000	$ 12,600,000	$ 371,000	$ 682,495	$ 60,000,000	$ 100,000,000	$ 210,453,495	$ 487,582,709
36					$ 50,453,495		$ 160,000,000		

	J	K	L	M	N	O
33	$ 33,946,240		$ 42,918,707	$ -	$ 42,918,707	
34	$ 35,983,014		$ 45,493,830	$ -	$ 45,493,830	
35	$ 698,036,204		$ 616,457,657	$ 100,000,000	$ 716,457,657	
36						

	A	B	C	D
1	PHASE 1 ONLY			
2	Gypsum Disposal at Sterling Materials			
3				
4	Revenue Requirement			
5	Eligible Plant			
6	Less Gypsum Plant Requirements/Phase Delays			
7	Revised Eligible Plant			
8	Less Accumulated Depreciation			
9	Less Deferred Tax Balance			
10	Environmental Compliance Rate Base			
11	Rate of Return			
12		Assumed	Tons (1.155)	1,000,000
13		86.7500%	Cubic yards	867,500
14	Operating Expenses			
15	less Gypsum to On-site Landfill			
16	Gypsum to Sterling			**$ 10.50**
17	Net Operating			
18	Annual Depreciation			
19	Annual Property Tax Expense			
20	Total OE			
21				
22	Total E(m) Gypsum to Sterling			
23	Total E(m) - Project 30 (See below)			
24				
25	**Difference**		**PVRR**	**7.81%**
26	Date			
27				
28	Revenue Requirments Summary			
29	2009 Amended Plan			
30	Project 30		Ghent Landfill Phase I	
31	See Exhibit B			
32				

	E	F	G	H	I	J	K	L	M
1									
2		2009	2010	2011	2012	2013	2014	2015	2016
3									
4									
5		$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 202,578,976
6		$ -							$ -
7		$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 202,578,976
8						$ (5,110,443)	$ (10,744,623)	$ (16,396,576)	$ (22,048,530)
9						$ (732,114)	$ (3,915,341)	$ (6,717,677)	$ (9,161,164)
10		$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 185,291,361	$ 187,281,989	$ 179,464,723	$ 171,369,282
11		11.1%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
12		$ 480,509	$ 5,098,729	$ 11,571,793	$ 19,480,236	$ 20,326,462	$ 20,544,834	$ 19,687,280	$ 18,799,210
13									
14		$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244
15						$ (9,569,527)	$ (10,143,699)	$ (10,752,321)	$ (11,397,460)
16						$ 10,500,000	$ 11,130,000	$ 11,797,800	$ 12,505,668
17		$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,933,781	$ 21,129,808	$ 22,397,596	$ 23,741,452
18						$ 5,110,443	$ 5,634,180	$ 5,651,953	$ 5,651,954
19			$ 6,483	$ 69,718	$ 158,229	$ 266,366	$ 279,017	$ 286,798	$ 279,274
20		$ 84,800	$ 127,832	$ 198,348	$ 294,577	$ 25,310,590	$ 27,043,006	$ 28,336,347	$ 29,672,680
21									
22	$ 507,821,049	$ 565,309	$ 5,226,561	$ 11,770,141	$ 19,774,813	$ 45,637,052	$ 47,587,840	$ 48,023,628	$ 48,471,890
23	$ 493,914,773	$ 565,309	$ 5,226,225	$ 11,769,378	$ 19,773,528	$ 44,705,239	$ 46,600,208	$ 46,976,843	$ 47,458,553
24									
25	**$ 13,906,277**	$ -	$ 336	$ 763	$ 1,285	$ 931,813	$ 987,632	$ 1,046,785	$ 1,013,337
26		12/31/2009	12/31/2010	12/31/2011	12/31/2012	12/31/2013	12/31/2014	12/31/2015	12/31/2016
27									
28									
29									
30									
31		2009	2010	2011	2012	2013	2014	2015	2016
32									**Start Phase II**

	N	O	P	Q	R	S	T	U
1								
2	2017	2018	2019	2020	2021	2022	2023	2024
3								
4								
5	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976
6	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
7	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976
8	$ (27,700,483)	$ (33,352,436)	$ (39,004,389)	$ (44,656,342)	$ (50,308,295)	$ (55,960,248)	$ (61,612,201)	$ (67,264,154)
9	$ (11,265,786)	$ (13,060,814)	$ (15,274,119)	$ (17,487,423)	$ (19,700,728)	$ (21,914,033)	$ (24,127,338)	$ (26,340,643)
10	$ 163,612,707	$ 156,165,726	$ 148,300,469	$ 140,435,211	$ 132,569,953	$ 124,704,695	$ 116,839,437	$ 108,974,180
11	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
12	$ 17,948,314	$ 17,131,380	$ 16,268,561	$ 15,405,743	$ 14,542,924	$ 13,680,105	$ 12,817,286	$ 11,954,467
13				$ 27,051	$ 661,940			
14	$ 23,991,239	$ 25,430,713	$ 26,956,556	**$ 28,601,000**	**$ 30,979,000**	$ 32,837,740	$ 34,808,004	$ 36,896,485
15	$ (12,081,307)	$ (12,806,186)	$ (13,574,557)	$ (14,389,030)	$ (15,252,372)	$ (16,167,515)	$ (17,137,565)	$ (18,165,819)
16	$ 13,256,008	$ 14,051,369	$ 14,894,451	$ 15,788,118	$ 16,735,405	$ 17,739,529	$ 18,803,901	$ 19,932,135
17	$ 25,165,940	$ 26,675,896	$ 28,276,450	$ 30,000,087	$ 32,462,033	$ 34,409,755	$ 36,474,340	$ 38,662,800
18	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953
19	$ 270,848	$ 262,514	$ 262,514	$ 262,514	$ 262,514	$ 262,514	$ 262,514	$ 262,514
20	$ 31,088,741	$ 32,590,363	$ 34,190,917	$ 35,914,554	$ 38,376,500	$ 40,324,222	$ 42,388,807	$ 44,577,267
21								
22	$ 49,037,055	$ 49,721,743	$ 50,459,478	$ 51,320,297	$ 52,919,423	$ 54,004,327	$ 55,206,093	$ 56,531,735
23	$ 48,044,547	$ 48,653,648	$ 49,139,584	$ 49,921,210	$ 51,436,391	$ 52,432,312	$ 53,539,758	$ 54,765,419
24								
25	$ 992,508	$ 1,068,095	$ 1,319,894	$ 1,399,087	$ 1,483,033	$ 1,572,015	$ 1,666,335	$ 1,766,316
26	12/31/2017	12/31/2018	12/31/2019	12/31/2020	12/31/2021	12/31/2022	12/31/2023	12/31/2024
27								
28								
29								
30								
31	2017	2018	2019	2020	2021	2022	2023	2024
32								**Start Phase III**

	V	W	X	Y	Z	AA	AB	AC
1								
2	2025	2026	2027	2028	2029	2030	2031	2032
3		**Start Phase II**						
4								
5	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976
6	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
7	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976
8	$ (72,916,107)	$ (78,568,060)	$ (84,220,013)	$ (89,871,966)	$ (95,523,919)	$ (101,175,872)	$ (106,827,825)	$ (112,479,778)
9	$ (28,553,947)	$ (30,767,252)	$ (32,980,557)	$ (35,193,862)	$ (37,407,167)	$ (39,620,471)	$ (41,833,776)	$ (44,047,081)
10	$ 101,108,922	$ 93,243,664	$ 85,378,406	$ 77,513,148	$ 69,647,890	$ 61,782,633	$ 53,917,375	$ 46,052,117
11	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
12	$ 11,091,649	$ 10,228,830	$ 9,366,011	$ 8,503,192	$ 7,640,374	$ 6,777,555	$ 5,914,736	$ 5,051,917
13				$ (1,912,962)				
14	$ 39,110,274	$ 41,456,890	$ 43,944,304	**$ 44,668,000**	$ 47,348,080	$ 50,188,965	$ 53,200,303	$ 56,392,321
15	$ (19,255,768)	$ (20,411,115)	$ (21,635,781)	$ (22,933,928)	$ (24,309,964)	$ (25,768,562)	$ (27,314,676)	$ (28,953,556)
16	$ 21,128,063	$ 22,395,747	$ 23,739,492	$ 25,163,861	$ 26,673,693	$ 28,274,114	$ 29,970,561	$ 31,768,795
17	$ 40,982,568	$ 43,441,522	$ 46,048,014	$ 46,897,933	$ 49,711,809	$ 52,694,517	$ 55,856,188	$ 59,207,559
18	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953
19	$ 262,514	$ 262,514	$ 262,514	$ 262,514	$ 262,514	$ 262,514	$ 262,514	$ 262,514
20	$ 46,897,035	$ 49,355,989	$ 51,962,481	$ 52,812,400	$ 55,626,276	$ 58,608,984	$ 61,770,655	$ 65,122,027
21								
22	$ 57,988,684	$ 59,584,819	$ 61,328,492	$ 61,315,592	$ 63,266,649	$ 65,386,539	$ 67,685,391	$ 70,173,944
23	$ 56,116,389	$ 57,600,187	$ 59,224,782	$ 59,085,659	$ 60,902,921	$ 62,880,987	$ 65,029,506	$ 67,358,705
24								
25	$ 1,872,294	$ 1,984,632	$ 2,103,710	$ 2,229,933	$ 2,363,729	$ 2,505,552	$ 2,655,886	$ 2,815,239
26	12/31/2025	12/31/2026	12/31/2027	12/31/2028	12/31/2029	12/31/2030	12/31/2031	12/31/2032
27								
28								
29								
30								
31	2025	2026	2027	2028	2029	2030	2031	2032
32								

	AD	AE	AF	AG	AH	AI
1						
2	2033	2034	2035	2036	2037	
3						
4						
5	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	
6	$ -	$ -	$ -	$ -	$ -	
7	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	
8	$ (118,131,731)	$ (123,783,684)	$ (129,435,637)	$ (135,087,590)	$ (140,739,543)	
9	$ (46,260,386)	$ (48,473,691)	$ (50,686,995)	$ (52,900,300)	$ (55,113,605)	
10	$ 38,186,859	$ 30,321,601	$ 22,456,344	$ 14,591,086	$ 6,725,828	
11	10.97%	10.97%	10.97%	10.97%	10.97%	
12	$ 4,189,098	$ 3,326,280	$ 2,463,461	$ 1,600,642	$ 737,823	$ 312,629,403
13						
14	$ 59,775,860	$ 63,362,412	$ 67,164,156	$ 71,194,006	$ 75,465,646	
15	$ (30,690,769)	$ (32,532,216)	$ (34,484,149)	$ (36,553,198)	$ (38,746,389)	
16	$ 33,674,922	$ 35,695,418	$ 37,837,143	$ 40,107,371	$ 42,513,814	
17	$ 62,760,013	$ 66,525,614	$ 70,517,151	$ 74,748,180	$ 79,233,071	
18	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953	
19	$ 262,514	$ 262,514	$ 262,514	$ 262,514	$ 262,514	
20	$ 68,674,480	$ 72,440,081	$ 76,431,618	$ 80,662,647	$ 85,147,538	
21						
22	$ 72,863,579	$ 75,766,361	$ 78,895,079	$ 82,263,289	$ 85,885,361	$ 1,548,661,161
23	$ 69,879,426	$ 72,603,158	$ 75,542,084	$ 78,709,115	$ 82,117,936	$ 1,498,059,007
24						
25	$ 2,984,153	$ 3,163,202	$ 3,352,994	$ 3,554,174	$ 3,767,424	**$ 50,602,154**
26	12/31/2033	12/31/2034	12/31/2035	12/31/2036	12/31/2037	
27						$ 50,602,154
28						
29						
30						
31	2033	2034	2035	2036	2037	
32						

	A	B	C	D
33	Revenue Requirement			
34	Eligible Plant			
35	Less Gypsum Plant Requirements/Phase Delays			
36	Revised Eligible Plant			
37	Less Accumulated Depreciation			
38	Less Deferred Tax Balance			
39	Environmental Compliance Rate Base			
40	Rate of Return			
41				
42				
43	Operating Expenses			
44	less Gypsum to On-site Landfill			
45	Gypsum to Sterling			
46	Net Operating			
47	Annual Depreciation			
48	Annual Property Tax Expense			
49	Total OE			
50				
51	Total E(m) Gypsum to On-site Landfill as Calculated			
52	Total E(m) Gypsum to On-site Landfill per KU			
53				
54	Calculation Check Difference			
55				
56				
57	Site E/F	Hauling cost of Ash 2.25 mile round trip		
58		Haul Road Maintenance		
59	Total			
60	Reduce by 50% for Site M			
61	**Difference**		**PVRR**	**7.81%**

	E	F	G	H	I	J	K	L	M
33									
34		$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 202,578,976
35		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
36		$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 202,578,976
37						$ (5,110,443)	$ (10,744,623)	$ (16,396,576)	$ (22,048,530)
38						$ (732,114)	$ (3,915,341)	$ (6,717,677)	$ (9,161,164)
39		$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 185,291,361	$ 187,281,989	$ 179,464,723	$ 171,369,282
40		11.1%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
41		$ 480,509	$ 5,098,729	$ 11,571,793	$ 19,480,236	$ 20,326,462	$ 20,544,834	$ 19,687,280	$ 18,799,210
42									
43		$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244
44						$ -	$ -	$ -	$ -
45						$ -	$ -	$ -	$ -
46		$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244
47						$ 5,110,443	$ 5,634,180	$ 5,651,953	$ 5,651,954
48			$ 6,483	$ 69,718	$ 158,229	$ 266,366	$ 279,017	$ 286,798	$ 279,274
49		$ 84,800	$ 127,832	$ 198,348	$ 294,577	$ 24,380,117	$ 26,056,704	$ 27,290,868	$ 28,564,471
50									
51		$ 565,309	$ 5,226,561	$ 11,770,141	$ 19,774,813	$ 44,706,579	$ 46,601,539	$ 46,978,148	$ 47,363,682
52		$ 565,309	$ 5,226,225	$ 11,769,378	$ 19,773,528	$ 44,705,239	$ 46,600,208	$ 46,976,843	$ 47,458,553
53									
54		$ -	$ 336	$ 763	$ 1,285	$ 1,340	$ 1,331	$ 1,305	$ (94,871)
55									
56									
57						$ 2,822,723	$ 2,992,086	$ 3,171,612	$ 3,361,908
58						$ 53,529	$ 56,741	$ 60,145	$ 63,754
59						$ 2,876,252	$ 3,048,827	$ 3,231,757	$ 3,425,662
60		$ -	$ -	$ -	$ -	$ 1,438,126	$ 1,524,414	$ 1,615,878	$ 1,712,831
61	**$ (21,865,903)**								

	N	O	P	Q	R	S	T	U
33								
34	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976
35	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
36	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976
37	$ (27,700,483)	$ (33,352,436)	$ (39,004,389)	$ (44,656,342)	$ (50,308,295)	$ (55,960,248)	$ (61,612,201)	$ (67,264,154)
38	$ (11,265,786)	$ (13,060,814)	$ (15,274,119)	$ (17,487,423)	$ (19,700,728)	$ (21,914,033)	$ (24,127,338)	$ (26,340,643)
39	$ 163,612,707	$ 156,165,726	$ 148,300,469	$ 140,435,211	$ 132,569,953	$ 124,704,695	$ 116,839,437	$ 108,974,180
40	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
41	$ 17,948,314	$ 17,131,380	$ 16,268,561	$ 15,405,743	$ 14,542,924	$ 13,680,105	$ 12,817,286	$ 11,954,467
42				$ 27,051	$ 661,940			
43	$ 23,991,239	$ 25,430,713	$ 26,956,556	**$ 28,601,000**	**$ 30,979,000**	$ 32,837,740	$ 34,808,004	$ 36,896,485
44	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
45	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
46	$ 23,991,239	$ 25,430,713	$ 26,956,556	$ 28,601,000	$ 30,979,000	$ 32,837,740	$ 34,808,004	$ 36,896,485
47	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953
48	$ 270,848	$ 262,514	$ 262,514	$ 262,514	$ 262,514	$ 262,514	$ 262,514	$ 262,514
49	$ 29,914,040	$ 31,345,180	$ 32,871,023	$ 34,515,467	$ 36,893,467	$ 38,752,207	$ 40,722,471	$ 42,810,952
50								
51	$ 47,862,354	$ 48,476,560	$ 49,139,584	$ 49,921,210	$ 51,436,391	$ 52,432,312	$ 53,539,758	$ 54,765,419
52	$ 48,044,547	$ 48,653,648						
53								
54	$ (182,193)	$ (177,088)						
55								
56								
57	$ 3,563,623	$ 3,777,440	$ 4,004,087	$ 4,244,332	$ 4,498,992	$ 4,768,931	$ 5,055,067	$ 5,358,371
58	$ 67,579	$ 71,634	$ 75,932	$ 80,488	$ 85,317	$ 90,436	$ 95,862	$ 101,614
59	$ 3,631,202	$ 3,849,074	$ 4,080,018	$ 4,324,820	$ 4,584,309	$ 4,859,367	$ 5,150,929	$ 5,459,985
60	$ 1,815,601	$ 1,924,537	$ 2,040,009	$ 2,162,410	$ 2,292,154	$ 2,429,684	$ 2,575,465	$ 2,729,993
61								

	V	W	X	Y	Z	AA	AB	AC
33								
34	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976
35	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
36	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976
37	$ (72,916,107)	$ (78,568,060)	$ (84,220,013)	$ (89,871,966)	$ (95,523,919)	$ (101,175,872)	$ (106,827,825)	$ (112,479,778)
38	$ (28,553,947)	$ (30,767,252)	$ (32,980,557)	$ (35,193,862)	$ (37,407,167)	$ (39,620,471)	$ (41,833,776)	$ (44,047,081)
39	$ 101,108,922	$ 93,243,664	$ 85,378,406	$ 77,513,148	$ 69,647,890	$ 61,782,633	$ 53,917,375	$ 46,052,117
40	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
41	$ 11,091,649	$ 10,228,830	$ 9,366,011	$ 8,503,192	$ 7,640,374	$ 6,777,555	$ 5,914,736	$ 5,051,917
42				$ (1,912,962)				
43	$ 39,110,274	$ 41,456,890	$ 43,944,304	**$ 44,668,000**	$ 47,348,080	$ 50,188,965	$ 53,200,303	$ 56,392,321
44	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
45	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
46	$ 39,110,274	$ 41,456,890	$ 43,944,304	$ 44,668,000	$ 47,348,080	$ 50,188,965	$ 53,200,303	$ 56,392,321
47	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953
48	$ 262,514	$ 262,514	$ 262,514	$ 262,514	$ 262,514	$ 262,514	$ 262,514	$ 262,514
49	$ 45,024,741	$ 47,371,357	$ 49,858,771	$ 50,582,467	$ 53,262,547	$ 56,103,432	$ 59,114,770	$ 62,306,788
50								
51	$ 56,116,389	$ 57,600,187	$ 59,224,782	$ 59,085,659	$ 60,902,921	$ 62,880,987	$ 65,029,506	$ 67,358,705
52								
53								
54								
55								
56								
57	$ 5,679,873	$ 6,020,666	$ 6,381,906	$ 6,764,820	$ 7,170,709	$ 7,600,952	$ 8,057,009	$ 8,540,429
58	$ 107,711	$ 114,174	$ 121,024	$ 128,285	$ 135,982	$ 144,141	$ 152,790	$ 161,957
59	$ 5,787,584	$ 6,134,839	$ 6,502,930	$ 6,893,105	$ 7,306,692	$ 7,745,093	$ 8,209,799	$ 8,702,387
60	$ 2,893,792	$ 3,067,420	$ 3,251,465	$ 3,446,553	$ 3,653,346	$ 3,872,547	$ 4,104,899	$ 4,351,193
61								

	AD	AE	AF	AG	AH	AI
33						$ -
34	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	
35	$ -	$ -	$ -	$ -	$ -	
36	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	
37	$ (118,131,731)	$ (123,783,684)	$ (129,435,637)	$ (135,087,590)	$ (140,739,543)	
38	$ (46,260,386)	$ (48,473,691)	$ (50,686,995)	$ (52,900,300)	$ (55,113,605)	
39	$ 38,186,859	$ 30,321,601	$ 22,456,344	$ 14,591,086	$ 6,725,828	
40	10.97%	10.97%	10.97%	10.97%	10.97%	
41	$ 4,189,098	$ 3,326,280	$ 2,463,461	$ 1,600,642	$ 737,823	$ 312,629,403
42						
43	$ 59,775,860	$ 63,362,412	$ 67,164,156	$ 71,194,006	$ 75,465,646	
44	$ -	$ -	$ -	$ -	$ -	
45	$ -	$ -	$ -	$ -	$ -	
46	$ 59,775,860	$ 63,362,412	$ 67,164,156	$ 71,194,006	$ 75,465,646	
47	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953	
48	$ 262,514	$ 262,514	$ 262,514	$ 262,514	$ 262,514	
49	$ 65,690,327	$ 69,276,879	$ 73,078,623	$ 77,108,473	$ 81,380,113	
50						
51	$ 69,879,426	$ 72,603,158	$ 75,542,084	$ 78,709,115	$ 82,117,936	
52						
53						
54						
55						
56						
57	$ 9,052,855	$ 9,596,026	$ 10,171,788	$ 10,782,095	$ 11,429,021	
58	$ 171,675	$ 181,975	$ 192,894	$ 204,467	$ 216,735	
59	$ 9,224,530	$ 9,778,002	$ 10,364,682	$ 10,986,563	$ 11,645,756	
60	$ 4,612,265	$ 4,889,001	$ 5,182,341	$ 5,493,281	$ 5,822,878	
61						

Cell: D16
Comment: John Walters:
Insert $9.00 for Limestone Backhaul calculation

	A	B	C	D
1	Revenue Requirments Summary			
2	Gypsum Disposal at Sterling Materials			
3				
4	Revenue Requirement			
5	Eligible Plant			
6	Less Gypsum Plant Requirements			
7	Revised Eligible Plant			
8	Less Accumulated Depreciation			
9	Less Deferred Tax Balance			
10	Environmental Compliance Rate Base			
11	Rate of Return			
12		Assumed	Tons (1.155)	1,000,000
13		86.7500%	Cubic yards	867,500
14	Operating Expenses			
15	less Gypsum to On-site Landfill			
16	Gypsum to Sterling			**$ 10.50**
17	Net Operating			
18	Annual Depreciation			
19	Annual Property Tax Expense			
20	Total OE			
21				
22	Total E(m) Gypsum to Sterling			
23	Total E(m) - Project 30 (See below)			
24				
25	**Difference**		**PVRR**	**7.81%**
26	Date			
27				
28	Revenue Requirments Summary			
29	2009 Amended Plan			
30	Project 30		Ghent Landfill Phase I	
31	See Exhibit B			
32				
33	Revenue Requirement			

	E	F	G	H	I	J	K	L
1								
2		2009	2010	2011	2012	2013	2014	2015
3								
4								
5		$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976
6		$ -						
7		$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976
8						$ (5,110,443)	$ (10,744,623)	$ (16,396,576)
9						$ (732,114)	$ (3,915,341)	$ (6,717,677)
10		$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 185,291,361	$ 187,281,989	$ 179,464,723
11		11.1%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
12		$ 480,509	$ 5,098,729	$ 11,571,793	$ 19,480,236	$ 20,326,462	$ 20,544,834	$ 19,687,280
13								
14		$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117
15						$ (9,569,527)	$ (10,143,699)	$ (10,752,321)
16						$ 10,500,000	$ 11,130,000	$ 11,797,800
17		$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,933,781	$ 21,129,808	$ 22,397,596
18						$ 5,110,443	$ 5,634,180	$ 5,651,953
19			$ 6,483	$ 69,718	$ 158,229	$ 266,366	$ 279,017	$ 286,798
20		$ 84,800	$ 127,832	$ 198,348	$ 294,577	$ 25,310,590	$ 27,043,006	$ 28,336,347
21								
22	$ 515,054,913	$ 565,309	$ 5,226,561	$ 11,770,141	$ 19,774,813	$ 45,637,052	$ 47,587,840	$ 48,023,628
23	$ 513,750,912	$ 565,309	$ 5,226,225	$ 11,769,378	$ 19,773,528	$ 44,705,239	$ 46,600,208	$ 46,976,843
24								
25	**$ 1,304,001**	$ -	$ 336	$ 763	$ 1,285	$ 931,813	$ 987,632	$ 1,046,785
26		12/31/2009	12/31/2010	12/31/2011	12/31/2012	12/31/2013	12/31/2014	12/31/2015
27								
28								
29								
30								
31		2009	2010	2011	2012	2013	2014	2015
32								
33								

	M	N	O	P	Q	R	S	T
1								
2	2016	2017	2018	2019	2020	2021	2022	2023
3								
4								
5	$ 203,078,976	$ 204,078,976	$ 212,078,976	$ 228,078,976	$ 239,078,976	$ 242,578,976	$ 242,578,976	$ 242,578,976
6	$ (500,000)	$ (1,500,000)	$ (9,500,000)	$ (25,500,000)	$ (36,500,000)	$ (40,000,000)	$ (40,000,000)	$ (40,000,000)
7	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976
8	$ (22,048,530)	$ (27,700,483)	$ (33,352,436)	$ (39,004,389)	$ (44,656,342)	$ (50,308,295)	$ (55,960,248)	$ (61,612,201)
9	$ (9,161,164)	$ (11,265,786)	$ (13,060,814)	$ (15,274,119)	$ (17,487,423)	$ (19,700,728)	$ (21,914,033)	$ (24,127,338)
10	$ 171,369,282	$ 163,612,707	$ 156,165,726	$ 148,300,469	$ 140,435,211	$ 132,569,953	$ 124,704,695	$ 116,839,437
11	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
12	$ 18,799,210	$ 17,948,314	$ 17,131,380	$ 16,268,561	$ 15,405,743	$ 14,542,924	$ 13,680,105	$ 12,817,286
13					$ 27,051	$ 661,940		
14	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,556	**$ 28,601,000**	**$ 30,979,000**	$ 32,837,740	$ 34,808,004
15	$ (11,397,460)	$ (12,081,307)	$ (12,806,186)	$ (13,574,557)	$ (14,389,030)	$ (15,252,372)	$ (16,167,515)	$ (17,137,565)
16	$ 12,505,668	$ 13,256,008	$ 14,051,369	$ 14,894,451	$ 15,788,118	$ 16,735,405	$ 17,739,529	$ 18,803,901
17	$ 23,741,452	$ 25,165,940	$ 26,675,896	$ 28,276,450	$ 30,000,087	$ 32,462,033	$ 34,409,755	$ 36,474,340
18	$ 5,651,954	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953
19	$ 279,274	$ 271,517	$ 264,458	$ 274,825	$ 295,558	$ 309,813	$ 314,348	$ 314,348
20	$ 29,672,680	$ 31,089,409	$ 32,592,307	$ 34,203,227	$ 35,947,599	$ 38,423,798	$ 40,376,056	$ 42,440,641
21								
22	$ 48,471,890	$ 49,037,723	$ 49,723,687	$ 50,471,789	$ 51,353,341	$ 52,966,722	$ 54,056,161	$ 55,257,928
23	$ 47,458,553	$ 48,044,547	$ 48,653,648	$ 52,503,105	$ 54,663,605	$ 56,504,274	$ 57,334,363	$ 58,271,442
24								
25	$ 1,013,337	$ 993,176	$ 1,070,039	$ (2,031,317)	$ (3,310,263)	$ (3,537,551)	$ (3,278,202)	$ (3,013,515)
26	12/31/2016	12/31/2017	12/31/2018	12/31/2019	12/31/2020	12/31/2021	12/31/2022	12/31/2023
27								
28								
29								
30								
31	2016	2017	2018	2019	2020	2021	2022	2023
32	**Start Phase II**							
33	$ 500,000	$ 1,000,000	$ 8,000,000	$ 16,000,000	$ 11,000,000	$ 3,500,000		

	U	V	W	X	Y	Z	AA	AB
1								
2	2024	2025	2026	2027	2028	2029	2030	2031
3			**Start Phase II**					
4			$ 500,000	$ 1,000,000	$ 8,000,000	$ 16,000,000	$ 11,000,000	$ 3,500,000
5	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976
6	$ (40,000,000)	$ (40,000,000)	$ (39,500,000)	$ (38,500,000)	$ (30,500,000)	$ (14,500,000)	$ (3,500,000)	$ -
7	$ 202,578,976	$ 202,578,976	$ 203,078,976	$ 204,078,976	$ 212,078,976	$ 228,078,976	$ 239,078,976	$ 242,578,976
8	$ (67,264,154)	$ (72,916,107)	$ (78,582,010)	$ (84,275,813)	$ (90,192,816)	$ (96,556,219)	$ (103,226,522)	$ (109,994,475)
9	$ (26,340,643)	$ (28,553,947)	$ (30,772,715)	$ (33,002,408)	$ (35,319,507)	$ (37,811,415)	$ (40,423,506)	$ (43,073,836)
10	$ 108,974,180	$ 101,108,922	$ 93,724,251	$ 86,800,755	$ 86,566,653	$ 93,711,342	$ 95,428,948	$ 89,510,665
11	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
12	$ 11,954,467	$ 11,091,649	$ 10,281,550	$ 9,522,043	$ 9,496,362	$ 10,280,134	$ 10,468,556	$ 9,819,320
13					$ (1,912,962)			
14	$ 36,896,485	$ 39,110,274	$ 41,456,890	$ 43,944,304	**$ 44,668,000**	$ 47,348,080	$ 50,188,965	$ 53,200,303
15	$ (18,165,819)	$ (19,255,768)	$ (20,411,115)	$ (21,635,781)	$ (22,933,928)	$ (24,309,964)	$ (25,768,562)	$ (27,314,676)
16	$ 19,932,135	$ 21,128,063	$ 22,395,747	$ 23,739,492	$ 25,163,861	$ 26,673,693	$ 28,274,114	$ 29,970,561
17	$ 38,662,800	$ 40,982,568	$ 43,441,522	$ 46,048,014	$ 46,897,933	$ 49,711,809	$ 52,694,517	$ 55,856,188
18	$ 5,651,953	$ 5,651,953	$ 5,665,903	$ 5,693,803	$ 5,917,003	$ 6,363,403	$ 6,670,303	$ 6,767,953
19	$ 314,348	$ 314,348	$ 314,348	$ 314,348	$ 314,348	$ 314,348	$ 314,348	$ 314,348
20	$ 44,629,102	$ 46,948,870	$ 49,421,774	$ 52,056,165	$ 53,129,284	$ 56,389,560	$ 59,679,169	$ 62,938,490
21								
22	$ 56,583,569	$ 58,040,518	$ 59,703,324	$ 61,578,208	$ 62,625,646	$ 66,669,694	$ 70,147,724	$ 72,757,809
23	$ 59,326,737	$ 60,507,340	$ 61,820,771	$ 63,274,999	$ 62,965,509	$ 64,612,404	$ 66,420,103	$ 68,398,255
24								
25	$ (2,743,168)	$ (2,466,822)	$ (2,117,447)	$ (1,696,791)	$ (339,863)	$ 2,057,291	$ 3,727,621	$ 4,359,554
26	12/31/2024	12/31/2025	12/31/2026	12/31/2027	12/31/2028	12/31/2029	12/31/2030	12/31/2031
27								
28								
29								
30								
31	2024	2025	2026	2027	2028	2029	2030	2031
32	**Start Phase III**							
33								

	AC	AD	AE	AF	AG	AH	AI
1							
2	2032	2033	2034	2035	2036	2037	
3							
4							
5	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	
6	$ -	$ -	$ -	$ -	$ -	$ -	
7	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	
8	$ (116,762,428)	$ (123,530,381)	$ (130,298,334)	$ (137,066,286)	$ (143,834,239)	$ (150,602,192)	
9	$ (45,724,167)	$ (48,374,497)	$ (51,024,827)	$ (53,675,158)	$ (56,325,488)	$ (58,975,819)	
10	$ 80,092,382	$ 70,674,098	$ 61,255,815	$ 51,837,532	$ 42,419,248	$ 33,000,965	
11	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	
12	$ 8,786,134	$ 7,752,949	$ 6,719,763	$ 5,686,577	$ 4,653,392	$ 3,620,206	$ 343,916,469
13							
14	$ 56,392,321	$ 59,775,860	$ 63,362,412	$ 67,164,156	$ 71,194,006	$ 75,465,646	
15	$ (28,953,556)	$ (30,690,769)	$ (32,532,216)	$ (34,484,149)	$ (36,553,198)	$ (38,746,389)	
16	$ 31,768,795	$ 33,674,922	$ 35,695,418	$ 37,837,143	$ 40,107,371	$ 42,513,814	
17	$ 59,207,559	$ 62,760,013	$ 66,525,614	$ 70,517,151	$ 74,748,180	$ 79,233,071	
18	$ 6,767,953	$ 6,767,953	$ 6,767,953	$ 6,767,953	$ 6,767,953	$ 6,767,953	
19	$ 314,348	$ 314,348	$ 314,348	$ 314,348	$ 314,348	$ 314,348	
20	$ 66,289,861	$ 69,842,314	$ 73,607,915	$ 77,599,452	$ 81,830,481	$ 86,315,372	
21							
22	$ 75,075,995	$ 77,595,263	$ 80,327,678	$ 83,286,029	$ 86,483,873	$ 89,935,578	$ 1,590,735,493
23	$ 70,557,087	$ 72,907,441	$ 75,460,807	$ 78,229,366	$ 81,226,030	$ 84,464,484	$ 1,569,221,600
24							
25	$ 4,518,908	$ 4,687,822	$ 4,866,871	$ 5,056,663	$ 5,257,843	$ 5,471,093	**$ 21,513,892**
26	12/31/2032	12/31/2033	12/31/2034	12/31/2035	12/31/2036	12/31/2037	
27							$ 21,513,892
28							
29							
30							
31	2032	2033	2034	2035	2036	2037	
32							
33							$ -

	A	B	C	D
34	Eligible Plant			
35	Less Gypsum Plant Requirements			
36	Revised Eligible Plant			
37	Less Accumulated Depreciation			
38	Less Deferred Tax Balance			
39	Environmental Compliance Rate Base			
40	Rate of Return			
41				
42				
43	Operating Expenses			
44	less Gypsum to On-site Landfill			
45	Gypsum to Sterling			
46	Net Operating			
47	Annual Depreciation			
48	Annual Property Tax Expense			
49	Total OE			
50				
51	Total E(m) Gypsum to On-site Landfill as Calculated			
52	Total E(m) Gypsum to On-site Landfill per KU			
53				
54	Calculation Check Difference			
55				
56				
57	Site E/F	Hauling cost of Ash 2.25 mile round trip		
58		Haul Road Maintenance		
59	Total			
60	Reduce by 50% for Site M			
61	**Difference**		**PVRR**	**7.81%**

	E	F	G	H	I	J	K	L
34		$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976
35		$ -	$ -	$ -	$ -	$ -	$ -	$ -
36		$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976
37						$ (5,110,443)	$ (10,744,623)	$ (16,396,576)
38						$ (732,114)	$ (3,915,341)	$ (6,717,677)
39		$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 185,291,361	$ 187,281,989	$ 179,464,723
40		11.1%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
41		$ 480,509	$ 5,098,729	$ 11,571,793	$ 19,480,236	$ 20,326,462	$ 20,544,834	$ 19,687,280
42								
43		$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117
44						$ -	$ -	$ -
45						$ -	$ -	$ -
46		$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117
47						$ 5,110,443	$ 5,634,180	$ 5,651,953
48			$ 6,483	$ 69,718	$ 158,229	$ 266,366	$ 279,017	$ 286,798
49		$ 84,800	$ 127,832	$ 198,348	$ 294,577	$ 24,380,117	$ 26,056,704	$ 27,290,868
50								
51		$ 565,309	$ 5,226,561	$ 11,770,141	$ 19,774,813	$ 44,706,579	$ 46,601,539	$ 46,978,148
52		$ 565,309	$ 5,226,225	$ 11,769,378	$ 19,773,528	$ 44,705,239	$ 46,600,208	$ 46,976,843
53								
54		$ -	$ 336	$ 763	$ 1,285	$ 1,340	$ 1,331	$ 1,305
55								
56								
57						$ 2,822,723	$ 2,992,086	$ 3,171,612
58						$ 53,529	$ 56,741	$ 60,145
59						$ 2,876,252	$ 3,048,827	$ 3,231,757
60		$ -	$ -	$ -	$ -	$ 1,438,126	$ 1,524,414	$ 1,615,878
61	**$ (21,865,903)**							

	M	N	O	P	Q	R	S	T
34	$ 203,078,976	$ 204,078,976	$ 212,078,976	$ 228,078,976	$ 239,078,976	$ 242,578,976	$ 242,578,976	$ 242,578,976
35	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
36	$ 203,078,976	$ 204,078,976	$ 212,078,976	$ 228,078,976	$ 239,078,976	$ 242,578,976	$ 242,578,976	$ 242,578,976
37	$ (22,062,480)	$ (27,756,283)	$ (33,673,286)	$ (40,036,689)	$ (46,706,992)	$ (53,474,945)	$ (60,242,897)	$ (67,010,850)
38	$ (9,166,960)	$ (11,288,480)	$ (13,186,459)	$ (15,678,367)	$ (18,290,458)	$ (20,940,788)	$ (23,591,119)	$ (26,241,449)
39	$ 171,849,536	$ 165,034,213	$ 165,219,232	$ 172,363,920	$ 174,081,526	$ 168,163,243	$ 158,744,960	$ 149,326,677
40	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
41	$ 18,851,894	$ 18,104,253	$ 18,124,550	$ 18,908,322	$ 19,096,743	$ 18,447,508	$ 17,414,322	$ 16,381,136
42					$ 27,051	$ 661,940		
43	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,556	**$ 28,601,000**	**$ 30,979,000**	$ 32,837,740	$ 34,808,004
44	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
45	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
46	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,556	$ 28,601,000	$ 30,979,000	$ 32,837,740	$ 34,808,004
47	$ 5,665,904	$ 5,693,803	$ 5,917,003	$ 6,363,403	$ 6,670,303	$ 6,767,953	$ 6,767,953	$ 6,767,953
48	$ 279,274	$ 271,517	$ 264,458	$ 274,825	$ 295,558	$ 309,813	$ 314,348	$ 314,348
49	$ 28,578,421	$ 29,956,559	$ 31,612,174	$ 33,594,783	$ 35,566,861	$ 38,056,766	$ 39,920,041	$ 41,890,306
50								
51	$ 47,430,316	$ 48,060,812	$ 49,736,723	$ 52,503,105	$ 54,663,605	$ 56,504,274	$ 57,334,363	$ 58,271,442
52	$ 47,458,553	$ 48,044,547	$ 48,653,648					
53								
54	$ (28,237)	$ 16,265	$ 1,083,075					
55								
56								
57	$ 3,361,908	$ 3,563,623	$ 3,777,440	$ 4,004,087	$ 4,244,332	$ 4,498,992	$ 4,768,931	$ 5,055,067
58	$ 63,754	$ 67,579	$ 71,634	$ 75,932	$ 80,488	$ 85,317	$ 90,436	$ 95,862
59	$ 3,425,662	$ 3,631,202	$ 3,849,074	$ 4,080,018	$ 4,324,820	$ 4,584,309	$ 4,859,367	$ 5,150,929
60	$ 1,712,831	$ 1,815,601	$ 1,924,537	$ 2,040,009	$ 2,162,410	$ 2,292,154	$ 2,429,684	$ 2,575,465
61								

	U	V	W	X	Y	Z	AA	AB
34	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976
35	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
36	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976
37	$ (73,778,803)	$ (80,546,756)	$ (87,314,709)	$ (94,082,662)	$ (100,850,615)	$ (107,618,568)	$ (114,386,521)	$ (121,154,474)
38	$ (28,891,779)	$ (31,542,110)	$ (34,192,440)	$ (36,842,770)	$ (39,493,101)	$ (42,143,431)	$ (44,793,762)	$ (47,444,092)
39	$ 139,908,393	$ 130,490,110	$ 121,071,827	$ 111,653,543	$ 102,235,260	$ 92,816,977	$ 83,398,693	$ 73,980,410
40	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
41	$ 15,347,951	$ 14,314,765	$ 13,281,579	$ 12,248,394	$ 11,215,208	$ 10,182,022	$ 9,148,837	$ 8,115,651
42					$ (1,912,962)			
43	$ 36,896,485	$ 39,110,274	$ 41,456,890	$ 43,944,304	**$ 44,668,000**	$ 47,348,080	$ 50,188,965	$ 53,200,303
44	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
45	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
46	$ 36,896,485	$ 39,110,274	$ 41,456,890	$ 43,944,304	$ 44,668,000	$ 47,348,080	$ 50,188,965	$ 53,200,303
47	$ 6,767,953	$ 6,767,953	$ 6,767,953	$ 6,767,953	$ 6,767,953	$ 6,767,953	$ 6,767,953	$ 6,767,953
48	$ 314,348	$ 314,348	$ 314,348	$ 314,348	$ 314,348	$ 314,348	$ 314,348	$ 314,348
49	$ 43,978,786	$ 46,192,575	$ 48,539,191	$ 51,026,605	$ 51,750,301	$ 54,430,381	$ 57,271,266	$ 60,282,604
50								
51	$ 59,326,737	$ 60,507,340	$ 61,820,771	$ 63,274,999	$ 62,965,509	$ 64,612,404	$ 66,420,103	$ 68,398,255
52								
53								
54								
55								
56								
57	$ 5,358,371	$ 5,679,873	$ 6,020,666	$ 6,381,906	$ 6,764,820	$ 7,170,709	$ 7,600,952	$ 8,057,009
58	$ 101,614	$ 107,711	$ 114,174	$ 121,024	$ 128,285	$ 135,982	$ 144,141	$ 152,790
59	$ 5,459,985	$ 5,787,584	$ 6,134,839	$ 6,502,930	$ 6,893,105	$ 7,306,692	$ 7,745,093	$ 8,209,799
60	$ 2,729,993	$ 2,893,792	$ 3,067,420	$ 3,251,465	$ 3,446,553	$ 3,653,346	$ 3,872,547	$ 4,104,899
61								

	AC	AD	AE	AF	AG	AH	AI
34	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	
35	$ -	$ -	$ -	$ -	$ -	$ -	
36	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	
37	$ (127,922,427)	$ (134,690,380)	$ (141,458,333)	$ (148,226,286)	$ (154,994,239)	$ (161,762,192)	
38	$ (50,094,422)	$ (52,744,753)	$ (55,395,083)	$ (58,045,413)	$ (60,695,744)	$ (63,346,074)	
39	$ 64,562,127	$ 55,143,844	$ 45,725,560	$ 36,307,277	$ 26,888,994	$ 17,470,710	
40	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	
41	$ 7,082,465	$ 6,049,280	$ 5,016,094	$ 3,982,908	$ 2,949,723	$ 1,916,537	$ 363,369,986
42							
43	$ 56,392,321	$ 59,775,860	$ 63,362,412	$ 67,164,156	$ 71,194,006	$ 75,465,646	
44	$ -	$ -	$ -	$ -	$ -	$ -	
45	$ -	$ -	$ -	$ -	$ -	$ -	
46	$ 56,392,321	$ 59,775,860	$ 63,362,412	$ 67,164,156	$ 71,194,006	$ 75,465,646	
47	$ 6,767,953	$ 6,767,953	$ 6,767,953	$ 6,767,953	$ 6,767,953	$ 6,767,953	
48	$ 314,348	$ 314,348	$ 314,348	$ 314,348	$ 314,348	$ 314,348	
49	$ 63,474,622	$ 66,858,161	$ 70,444,713	$ 74,246,458	$ 78,276,307	$ 82,547,947	
50							
51	$ 70,557,087	$ 72,907,441	$ 75,460,807	$ 78,229,366	$ 81,226,030	$ 84,464,484	
52							
53							
54							
55							
56							
57	$ 8,540,429	$ 9,052,855	$ 9,596,026	$ 10,171,788	$ 10,782,095	$ 11,429,021	
58	$ 161,957	$ 171,675	$ 181,975	$ 192,894	$ 204,467	$ 216,735	
59	$ 8,702,387	$ 9,224,530	$ 9,778,002	$ 10,364,682	$ 10,986,563	$ 11,645,756	
60	$ 4,351,193	$ 4,612,265	$ 4,889,001	$ 5,182,341	$ 5,493,281	$ 5,822,878	
61							

Cell: D16
Comment: John Walters:
Insert $9.00 for Limestone Backhaul calculation

	A	B	C	D	E	F
1	Revenue Requirments Summary					
2	2009 Amended Plan - Offsite Gypsum Disposal					
3						
4	Project 30		Ghent Landfill Phase I			2009
5						
6	Revenue Requirement					
7	Eligible Plant					$ 4,321,671
8	Less Gypsum Plant					$ -
9	Revised Eligible Plant					$ 4,321,671
10	Less Accumulated Depreciation					
11	Less Deferred Tax Balance					
12	Environmental Compliance Rate Base					$ 4,321,671
13	Rate of Return					11.1%
14						$ 480,509
15						
16	Operating Expenses					$ 84,800
17	less Gypsum to On-site Landfill					
18	Gypsum to Sterling (800,000 tons)					
19	Net Operating					$ 84,800
20	Annual Depreciation					
21	Annual Property Tax Expense					
22	Total OE					$ 84,800
23						
24	Total E(m) Gypsum to Sterling					$ 565,309
25	Total E(m) Gypsum to On-site Landfill					$ 565,309
26						
27	Difference					$ -

	G	H	I	J	K	L	M	N
1								
2								
3								
4	2010	2011	2012	2013	2014	2015	2016	2017
5								
6								
7	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 203,254,220	$ 203,969,979
8	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
9	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 203,254,220	$ 203,969,979
10				$ (5,110,443)	$ (10,744,623)	$ (16,396,576)	$ (22,067,369)	$ (27,758,131)
11				$ (732,114)	$ (3,915,341)	$ (6,717,677)	$ (9,168,992)	$ (11,289,232)
12	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 185,291,361	$ 187,281,989	$ 179,464,723	$ 172,017,859	$ 164,922,616
13	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
14	$ 5,098,729	$ 11,571,793	$ 19,480,236	$ 20,326,462	$ 20,544,834	$ 19,687,280	$ 18,870,359	$ 18,092,011
15								
16	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244	$ 23,991,239
17				$ -	$ -	$ -	$ -	$ -
18				$ -	$ -	$ -	$ -	$ -
19	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244	$ 23,991,239
20				$ 5,110,443	$ 5,634,180	$ 5,651,953	$ 5,670,793	$ 5,690,762
21	$ 6,483	$ 69,718	$ 158,229	$ 266,366	$ 279,017	$ 286,798	$ 279,274	$ 271,751
22	$ 127,832	$ 198,348	$ 294,577	$ 24,380,117	$ 26,056,704	$ 27,290,868	$ 28,583,311	$ 29,953,752
23								
24	$ 5,226,561	$ 11,770,141	$ 19,774,813	$ 44,706,579	$ 46,601,539	$ 46,978,148	$ 47,453,670	$ 48,045,763
25	$ 5,226,225	$ 11,769,378	$ 19,773,528	$ 44,705,239	$ 46,600,208	$ 46,976,843	$ 47,458,553	$ 48,044,547
26								
27	$ 336	$ 763	$ 1,285	$ 1,340	$ 1,331	$ 1,305	$ (4,883)	$ 1,216

	O	P
1		
2		
3		
4	2018	
5		
6		
7	$ 203,969,979	
8	$ -	
9	$ 203,969,979	
10	$ (33,448,893)	
11	$ (13,098,586)	
12	$ 157,422,500	
13	10.97%	
14	$ 17,269,248	
15		
16	$ 25,430,713	
17	$ -	
18	$ -	
19	$ 25,430,713	
20	$ 5,690,762	
21	$ 264,317	
22	$ 31,385,792	
23		
24	$ 48,655,040	
25	$ 48,653,648	
26		
27	$ 1,392	$ 4,084

From: Wilson, Stuart(/O=LGE/OU=LOUISVILLE/CN=RECIPIENTS/CN=WILSONST)
To: Farhat, Monica
CC:
BCC:
Subject: Fw: Sterling Ventures Gypsum Proposal
Sent: 01/20/2012 04:46:10 PM -0500 (EST)
Attachments: Exhibit 1.pdf; Exhibit 2.pdf; Exhibit 3.pdf; Exhibit 4.pdf;

Fyi... We need to think about a response to this gentleman's email.

Stuart

From: Schram, Chuck
Sent: Friday, January 20, 2012 04:42 PM
To: Wilson, Stuart
Subject: Fw: Sterling Ventures Gypsum Proposal

From: Joyce, Jeff
Sent: Friday, January 20, 2012 03:18 PM
To: Schram, Chuck
Subject: FW: Sterling Ventures Gypsum Proposal

From: John Walters [mailto:johnwalters@sterlingventures.com]
Sent: Thursday, January 19, 2012 2:49 PM
To: Joyce, Jeff; Pfeiffer, Caryl
Cc: Alex Boone
Subject: Sterling Ventures Gypsum Proposal

Jeff

I understand from Scott Straight that you are now in charge of doing the PVRR comparative analysis of Sterling's proposal to use the new landfill at Ghent for ash only, with gypsum disposal at our underground mine. Attached is our effort at a PVRR comparative analysis of all gypsum going to Sterling, verses into your new landfill. We based our comparative PVRR analysis on the projected O&M and capital cost for the landfill that KU filed with the PSC in 2009, and confirmed in 2011.

Attached Exhibit 1 is a general summary of our proposal, as well as the assumptions used in the PVRR analysis of that proposal. Exhibits 2 and 3 are PVRR analyses under two separate scenarios. The first, Exhibit 2, is a straight PVRR comparison to the landfill, as detailed in the 2009 filings with the PSC, versus using our underground limestone mine for gypsum beneficial reuse disposal. In this scenario, our proposal is the least cost alternative by $260,498,235.00 (PVRR least cost alternative by $86,599,008.00).

Exhibit 3 is a PVRR comparison assuming KU purchases scrubber limestone from Sterling, which is then backhauled to Ghent. Here, our proposal is the least cost alternative by $342,795,003.00 (PVRR least cost alternative by $109,405,671.00). In both PVRR analyses, $222,368,117.00 of the saving comes from a reduction in Return on Equity from reduced capital costs. As you will see, Exhibit 3 assumes a delivered scrubber stone price of $8.50 ($7.00 stone with $1.50 trucking allocation out of the $4.50 round trip gypsum trucking), which based on documents filed with the PSC, should approximate the delivered cost of scrubber stone from Mulzer.

Exhibit 4 is the PVRR comparative analysis from Exhibits 2 and 3 in the table format that Charles Schram identified that you would use in your PVRR analysis of beneficial reuse opportunities.

I also understand from documents KU filed with the PSC that the landfill's CCP transport system cost may be significantly over the original projection, and that the projected capital cost of Phase I has increased from $204,000,000 to $283,000,000. Please note that the increase in the cost of Phase I has not been included in our PVRR analysis, and therefore the savings from our proposal may increase as a result of the additional capital required for Phase I.

As you can see from our projections, in addition to O&M cost savings, you can delay Phase II of the Ghent Landfill project by eleven years, and completely eliminate Phase III. You can also avoid purchasing gypsum handling equipment. However, these savings assume that all gypsum is beneficially reused at Sterling's underground mine starting with the opening of Phase I in 2013.

In Scott Straight's email to me indicating that you are now in charge of the PVRR comparative analysis, he stated that Sterling's proposal "could have merit in a few years to defer the next phased expansion of the landfill", but that "[t]he next phase of the landfill is years away…." I must admit that I am confused by Scott's conclusion. It would appear that if the ability to avoid placing gypsum in the Ghent landfill "could have merit in a few years," it also possibly has merit today. Our permit for your gypsum is approved and in place.

As indicated above, failing to take advantage of the Sterling opportunity in 2013 when the landfill opens would result in the unnecessary purchase of gypsum related equipment, and the placement of approximately 850,000 cubic yards per year of gypsum into the landfill, thereby reducing its life. The projected savings from our proposal between 2012 and 2019 (the projected opening of Phase II) is $41,900,000.00, without backhauling limestone, and $54,941,000.00 if you take advantage of the limestone backhaul option.

If you anticipate opening the landfill in 2013, planning needs to begin immediately if you are going to take advantage of our beneficial reuse opportunity. We need to address numerous details and logistics, as well as negotiate a contract. In addition, as indicated above, the greatest saving potential for you occurs when you purchase hi-calcium scrubber limestone from Sterling. My understanding from documents filed with the PSC, the existing contract with Mulzer Crushed Stone for Ghent's scrubber limestone is a 9-year contract ending late 2014, with an "opt-out" provision in 2012. I also understand KU's normal practice is to enter into long terms contracts for scrubber stone. If you want to take full advantage of the potential savings, we would also need to negotiate a contract for limestone.

There are obviously numerous details we need to discuss in order for you to complete your own PVRR analysis of our proposal. Could you please let me know within the next couple of days if you are planning to do your PVRR analysis now, or as Scott indicated, you will be delaying that analysis for a few years?

Thank you for your consideration. I look forward to hearing from you.

John

John W. Walters, Jr.
Sterling Ventures, LLC
376 South Broadway
Lexington, KY 40508
Phone (859) 259-9600
Cell (859) 621-3990
Fax (859) 259-9601

johnwalters@sterlingventures.com

GHENT STATION ALTERNATIVE FOR CCP/GYPSUM DISPOSAL

Background

Sterling Materials is an active underground limestone mine located in Verona, Kentucky, approximately 20 miles from Kentucky Utilities Company's Ghent Station. Sterling currently mines between 1,000,000 and 1,600,000 tons of limestone per year, and has been in operation since 2000.

In addition to producing limestone for the general aggregate construction market, Sterling also mines high calcium limestone for Mississippi Lime Company for use in Mississippi Lime's kiln located on Sterling's property. This high calcium limestone is also suitable for use as scrubber stone in Ghent's limestone FGD scrubber system.

In November 2010, Sterling obtained a Beneficial Reuse Special Waste Permit from the Kentucky Department of Environmental Protection, Division of Waste Management specifically allowing the beneficial reuse of Ghent's FGD gypsum in Sterling's mine.

KU has proposed building a new landfill at Ghent in three phases for an estimated total cost of $360,000,000 to handle the plant's three coal combustion by-products ("CCPs") through 2037[1]. KU forecasted the following wet storage CCP production volumes for Ghent Station (Cubic Yards):

Year	Fly Ash	Bottom Ash	Gypsum
2009	540,000	140,000	880,000
2010	550,000	150,000	1,090,000
2011	580,000	150,000	1,120,000
2012	550,000	150,000	1,060,000
2013	550,000	150,000	1,090,000

Source: Coal Combustion Byproduct Plan for Ghent Station June 2009 (the "Ghent CCP Plan", page 7)

Ghent's FGD gypsum is currently placed in a wet gypsum stacking pond. Ghent also has a contract to supply CertainTeed, Inc. with gypsum, and KU has estimated that CertainTeed will purchase approximately 222,000 cubic yards per year of gypsum from Ghent. As a result, Ghent will be required to continue diverting a portion of its gypsum production to the gypsum stacking pond.

Alternative Proposal for Gypsum Disposal at Sterling Materials' Mine

Sterling Materials is proposing that Ghent send all of its gypsum production (net of sales CertainTeed) to Sterling's mine for beneficial reuse, with Ghent's with the new landfill being used for ash disposal only. Sterling estimates that the PVRR cost saving from the beneficial reuse of Ghent's gypsum is at least $80,000,000. The substantial saving are generated from the ability to significantly delay the construction of phase 2 of the landfill, completely eliminate phase 3, and eliminate gypsum related

[1] Phase I cost thru 2018 of $203,969,979 as set forth in Revenue Requirement Summary for Project 30 – Ghent Landfill Phase I attached. Total project capital cost estimated to be $360,000,000 per direct testimony of John Voyles before the Kentucky Public Service Commission in Case No. 2009-00197.

capital cost and expenses associated with the landfill (all gypsum continue to be placed in stacking pond for transfer to CertainTeed and Sterling Materials).

Sterling is not proposing that the Ghent landfill not be built, but rather that KU take advantage of Sterling's Beneficial Reuse Permit so that the life of the landfill can be extended, and capital and operating cost be eliminated, by diverting the gypsum that would have been placed in the landfill to Sterling's mine. The attached PVRR analysis assumes that all gypsum would be diverted beginning with the opening of the new landfill.

Assumptions in Ghent Project 30 PVRR Analysis

1. Total price for loading, hauling and fees to Sterling Materials of $10.50 in 2013.
2. Net CCP production of approximately 868,000 cubic yards (1,090,000 – 222,000 to CertainTeed).
3. Cubic yards to ton conversion factor – cy x 1.155 (based on Trans Ash conversion assumption of 1.3 MCY equals 1.5 million tons as hauled - see page 10 of Ghent CCP Plan).
4. Reduce Phase I construction cost by $53,110,000[2] by continuing to place gypsum temporarily in existing gypsum stacking pond until shipment to Sterling.

Dry Gypsum Handling System	$36,800,000
Gypsum Fines Project	$12,600,000
Gypsum Dewatering Facility Earthwork	$ 3,710,000

5. Phase III landfill construction cost eliminated. Phase II construction delayed from 2018 to 2030.
   - Phase I capacity – 14.7 MCY (See Ghent CCP Plan page 12)
   - Ash Production – 700,000 MCY (See Ghent CCP Plan page 7)
   - Phase I life until full – 21 years
6. Total Phase II and III construction costs - $157,421,024 (timing and amounts of expenditures based retirement studies analysis in PSC Case No. 2011-00162)
   - Phase II construction cost - $40,000,000
   - Phase III construction cost - $117,421,024
7. Eliminate following Ghent Landfill Operating Expenses 2013 Estimates (See Ghent Landfill - Phase I attached)

Dry Gypsum Handling System	$ 682,495
Hauling Gypsum to Landfill	
Loading	$1,746,384
Phase I-2.25 mile round trip	$3,997,156
Landfilling Gypsum	$3,143,492

8. Continue 2018 Annual Depreciation Rate of 2.7899% on Eligible Capital through 2037
9. Continue 2018 Property Tax Expense Rate of .1259% on Eligible Capital through 2037
10. Apply KU O&M Escalation Rate of 6% and Discount Rate of 7.81% (See Ghent CCP Plan, page 22).

[2] See Ghent Landfill - Phase I attached.

Purchase of Scrubber Stone from Sterling

Sterling Materials mines a high calcium seam of limestone in its 2nd and 3rd levels that will meet, and possibly exceed, Ghent's calcium specifications for scrubber stone. Based on general industry knowledge, without verification, it is believed that Ghent's current cost of scrubber stone FOB plant is approximately $8.50.

The proposed price of $10.50 for gypsum disposal at Sterling includes $4.50 per ton for transportation, based upon an assumed round trip turn of 1.5 hours, and $75.00 per hour to haul 25 tons.

Sterling is proposing to sell high calcium limestone to Ghent for $7.00 per ton (as of October, 2011) and backhauling the stone to Ghent. If a $1.50 per ton trucking fee is assigned to the transportation of the limestone, Ghent will incur no additional cost for it scrubber stone. However, reducing the transportation component of the gypsum disposal cost by $1.50 reduces the proposed disposal cost from $10.50 to $9.00 per ton, and correspondingly increases the PVRR saving advantage from approximately $80,000,000 to over $100,000,000.

Construct Ash Storage Pond at Site M (see Ghent CCP Plan, Page 12)

It would appear that transporting gypsum to Sterling's mine, then using Site M as an ash landfill, verses Site E/F, would substantially reduce ash disposal cost and further increase the PVRR saving from disposing all of Ghent's gypsum at Sterling.

Site M is substantially closer to Ghent than Site E/F. The estimated cost of hauling fly and bottom ash to Site E/F is $2,822,723 in 2013, and the corresponding haul Road maintenance cost is $53,529. Even reducing those costs by a modest 50% for the haul to Site M verses site E/F would produce another $21,800,000 in PVRR savings.

Revenue Requirments Summary
Gypsum Disposal at Sterling Materials

			2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Revenue Requirement													
Eligible Plant			$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 203,078,976	$ 204,078,976	$ 212,078,976	$ 228,078,976
Less Gypsum Plant Requirements/Phase Delays			$ -	$ (14,090,000)	$ (40,060,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,610,000)	$ (54,610,000)	$ (62,610,000)	$ (78,610,000)
Revised Eligible Plant			$ 4,321,671	$ 32,388,846	$ 65,425,803	$ 124,467,356	$ 138,023,918	$ 148,831,953	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976
Less Accumulated Depreciation							$ (3,690,414)	$ (7,842,826)	$ (12,013,010)	$ (16,183,194)	$ (20,353,378)	$ (24,523,563)	$ (28,693,747)
Less Deferred Tax Balance							$ (528,683)	$ (2,857,926)	$ (4,921,730)	$ (6,724,117)	$ (8,277,719)	$ (9,603,427)	$ (11,236,471)
Environmental Compliance Rate Base			$ 4,321,671	$ 32,388,846	$ 65,425,803	$ 124,467,356	$ 133,804,821	$ 138,131,202	$ 132,534,236	$ 126,561,665	$ 120,837,879	$ 115,341,986	$ 109,538,758
Rate of Return			11.1%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
Assumed Tons (1.155)	1,000,000		$ 480,509	$ 3,553,056	$ 7,177,211	$ 13,654,069	$ 14,678,389	$ 15,152,593	$ 14,539,006	$ 13,883,815	$ 13,255,915	$ 12,653,016	$ 12,016,402
86.7500% Cubic yards	867,500												
Operating Expenses			$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,556
less Gypsum to On-site Landfill							$ (9,569,527)	$ (10,143,699)	$ (10,752,321)	$ (11,397,460)	$ (12,081,307)	$ (12,806,186)	$ (13,574,557)
Gypsum to Sterling	$ 10.50						$ 10,500,000	$ 11,130,000	$ 11,797,800	$ 12,505,668	$ 13,256,008	$ 14,051,369	$ 14,894,451
Net Operating			$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,933,781	$ 21,129,808	$ 22,397,596	$ 23,741,452	$ 25,165,940	$ 26,675,896	$ 28,276,450
Annual Depreciation							$ 3,690,414	$ 4,152,411	$ 4,170,184	$ 4,170,185	$ 4,170,184	$ 4,170,184	$ 4,170,184
Annual Property Tax Expense				$ 6,483	$ 69,718	$ 158,229	$ 266,366	$ 279,017	$ 286,798	$ 279,274	$ 271,517	$ 264,458	$ 274,825
Total OE			$ 84,800	$ 127,832	$ 198,348	$ 294,577	$ 23,890,561	$ 25,561,237	$ 26,854,579	$ 28,190,911	$ 29,607,640	$ 31,110,538	$ 32,721,458
Total E(m) Gypsum to Sterling		$ 460,435,348	$ 565,309	$ 3,680,888	$ 7,375,559	$ 13,948,646	$ 38,568,950	$ 40,714,230	$ 41,393,584	$ 42,074,725	$ 42,863,556	$ 43,763,554	$ 44,737,860
Total E(m) - Project 30 (See below)		$ 547,034,356	$ 565,309	$ 5,226,561	$ 11,770,141	$ 19,774,813	$ 44,706,579	$ 46,601,539	$ 46,978,148	$ 47,430,316	$ 48,060,812	$ 49,736,723	$ 52,503,105
Difference **PVRR**	7.81%	$ (86,599,008)	$ -	$ (1,545,673)	$ (4,394,582)	$ (5,826,167)	$ (6,137,629)	$ (5,887,309)	$ (5,584,564)	$ (5,355,590)	$ (5,197,256)	$ (5,973,170)	$ (7,765,245)
Date			12/31/2009	12/31/2010	12/31/2011	12/31/2012	12/31/2013	12/31/2014	12/31/2015	12/31/2016	12/31/2017	12/31/2018	12/31/2019

Revenue Requirments Summary
2009 Amended Plan
Project 30 Ghent Landfill Phase I
See Exhibit B

		2009	2010	2011	2012	2013	2014	2015	2016 Start Phase II	2017	2018	2019
Revenue Requirement									$ 500,000	$ 1,000,000	$ 8,000,000	$ 16,000,000
Eligible Plant		$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 203,078,976	$ 204,078,976	$ 212,078,976	$ 228,078,976
Less Gypsum Plant Requirements/Phase Delays		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Revised Eligible Plant		$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 203,078,976	$ 204,078,976	$ 212,078,976	$ 228,078,976
Less Accumulated Depreciation						$ (5,110,443)	$ (10,744,623)	$ (16,396,576)	$ (22,062,480)	$ (27,756,283)	$ (33,673,286)	$ (40,036,689)
Less Deferred Tax Balance						$ (732,114)	$ (3,915,341)	$ (6,717,677)	$ (9,166,960)	$ (11,288,480)	$ (13,186,459)	$ (15,678,367)
Environmental Compliance Rate Base		$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 185,291,361	$ 187,281,989	$ 179,464,723	$ 171,849,536	$ 165,034,213	$ 165,219,232	$ 172,363,920
Rate of Return		11.1%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
		$ 480,509	$ 5,098,729	$ 11,571,793	$ 19,480,236	$ 20,326,462	$ 20,544,834	$ 19,687,280	$ 18,851,894	$ 18,104,253	$ 18,124,550	$ 18,908,322
Difference	$ -											
Operating Expenses		$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,556
less Gypsum to On-site Landfill						$ -	$ -	$ -	$ -	$ -	$ -	$ -
Gypsum to Sterling						$ -	$ -	$ -	$ -	$ -	$ -	$ -
Net Operating		$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,556
Annual Depreciation						$ 5,110,443	$ 5,634,180	$ 5,651,953	$ 5,665,904	$ 5,693,803	$ 5,917,003	$ 6,363,403
Annual Property Tax Expense			$ 6,483	$ 69,718	$ 158,229	$ 266,366	$ 279,017	$ 286,798	$ 279,274	$ 271,517	$ 264,458	$ 274,825
Total OE		$ 84,800	$ 127,832	$ 198,348	$ 294,577	$ 24,380,117	$ 26,056,704	$ 27,290,868	$ 28,578,421	$ 29,956,559	$ 31,612,174	$ 33,594,783
Total E(m) Gypsum to On-site Landfill as Calculated	547,034,356	$ 565,309	$ 5,226,561	$ 11,770,141	$ 19,774,813	$ 44,706,579	$ 46,601,539	$ 46,978,148	$ 47,430,316	$ 48,060,812	$ 49,736,723	$ 52,503,105
Total E(m) Gypsum to On-site Landfill per KU		$ 565,309	$ 5,226,225	$ 11,769,378	$ 19,773,528	$ 44,705,239	$ 46,600,208	$ 46,976,843	$ 47,458,553	$ 48,044,547	$ 48,653,648	
Calculation Check Difference		$ -	$ 336	$ 763	$ 1,285	$ 1,340	$ 1,331	$ 1,305	$ (28,237)	$ 16,265	$ 1,083,075	
Site E/F Hauling cost of Ash 2.25 mile round trip						$ 2,822,723	$ 2,992,086	$ 3,171,612	$ 3,361,908	$ 3,563,623	$ 3,777,440	$ 4,004,087
Haul Road Maintenance						$ 53,529	$ 56,741	$ 60,145	$ 63,754	$ 67,579	$ 71,634	$ 75,932
Total						$ 2,876,252	$ 3,048,827	$ 3,231,757	$ 3,425,662	$ 3,631,202	$ 3,849,074	$ 4,080,018
Reduce by 50% for Site M		$ -	$ -	$ -	$ -	$ 1,438,126	$ 1,524,414	$ 1,615,878	$ 1,712,831	$ 1,815,601	$ 1,924,537	$ 2,040,009
Difference **PVRR**	7.81% $ (21,865,903)											

Revenue Requirments Summary
Gypsum Disposal at Sterling Materials

			2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
									Start Phase II				
Revenue Requirement									$ 500,000	$ 1,000,000	$ 8,000,000	$ 16,000,000	$ 11,000,000
Eligible Plant			$ 239,078,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 262,328,976	$ 302,328,976	$ 342,328,976	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
Less Gypsum Plant Requirements/Phase Delays			$ (89,610,000)	$ (93,110,000)	$ (93,110,000)	$ (93,110,000)	$ (112,860,000)	$ (152,860,000)	$ (192,860,000)	$ (209,031,024)	$ (201,031,024)	$ (185,031,024)	$ (174,031,024)
Revised Eligible Plant			$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,968,976	$ 150,968,976	$ 158,968,976	$ 174,968,976	$ 185,968,976
Less Accumulated Depreciation			$ (32,863,931)	$ (37,034,115)	$ (41,204,299)	$ (45,374,483)	$ (49,544,667)	$ (53,714,851)	$ (57,898,986)	$ (62,111,020)	$ (66,546,254)	$ (71,427,888)	$ (76,616,422)
Less Deferred Tax Balance			$ (12,869,515)	$ (14,502,559)	$ (16,135,603)	$ (17,768,648)	$ (19,401,692)	$ (21,034,736)	$ (22,673,243)	$ (24,322,675)	$ (26,059,513)	$ (27,971,161)	$ (30,002,991)
Environmental Compliance Rate Base			$ 103,735,530	$ 97,932,302	$ 92,129,073	$ 86,325,845	$ 80,522,617	$ 74,719,389	$ 69,396,748	$ 64,535,281	$ 66,363,209	$ 75,569,927	$ 79,349,563
Rate of Return			10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
Assumed Tons (1.155)	1,000,000		$ 11,379,788	$ 10,743,173	$ 10,106,559	$ 9,469,945	$ 8,833,331	$ 8,196,717	$ 7,612,823	$ 7,079,520	$ 7,280,044	$ 8,290,021	$ 8,704,647
86.7500% Cubic yards	867,500		$ 27,051	$ 661,940							$ (1,912,962)		
Operating Expenses			$ 28,601,000	$ 30,979,000	$ 32,837,740	$ 34,808,004	$ 36,896,485	$ 39,110,274	$ 41,456,890	$ 43,944,304	$ 44,668,000	$ 47,348,080	$ 50,188,965
less Gypsum to On-site Landfill			$ (14,389,030)	$ (15,252,372)	$ (16,167,515)	$ (17,137,565)	$ (18,165,819)	$ (19,255,768)	$ (20,411,115)	$ (21,635,781)	$ (22,933,928)	$ (24,309,964)	$ (25,768,562)
Gypsum to Sterling	$ 10.50		$ 15,788,118	$ 16,735,405	$ 17,739,529	$ 18,803,901	$ 19,932,135	$ 21,128,063	$ 22,395,747	$ 23,739,492	$ 25,163,861	$ 26,673,693	$ 28,274,114
Net Operating			$ 30,000,087	$ 32,462,033	$ 34,409,755	$ 36,474,340	$ 38,662,800	$ 40,982,568	$ 43,441,522	$ 46,048,014	$ 46,897,933	$ 49,711,809	$ 52,694,517
Annual Depreciation			$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,184,134	$ 4,212,034	$ 4,435,234	$ 4,881,634	$ 5,188,534
Annual Property Tax Expense			$ 295,558	$ 309,813	$ 314,348	$ 314,348	$ 314,348	$ 339,942	$ 391,776	$ 443,610	$ 466,510	$ 466,510	$ 466,510
Total OE			$ 34,465,830	$ 36,942,030	$ 38,894,287	$ 40,958,872	$ 43,147,333	$ 45,492,694	$ 48,017,432	$ 50,703,658	$ 51,799,676	$ 55,059,952	$ 58,349,561
Total E(m) Gypsum to Sterling		$ 460,435,348	$ 45,845,618	$ 47,685,203	$ 49,000,846	$ 50,428,818	$ 51,980,664	$ 53,689,411	$ 55,630,256	$ 57,783,179	$ 59,079,720	$ 63,349,973	$ 67,054,208
Total E(m) - Project 30 (See below)		$ 547,034,356	$ 54,663,605	$ 56,504,274	$ 57,334,363	$ 58,271,442	$ 61,960,218	$ 68,415,929	$ 74,860,342	$ 78,297,820	$ 77,511,114	$ 78,657,892	$ 79,965,474
Difference PVRR	**7.81%**	**$ (86,599,008)**	$ (8,817,987)	$ (8,819,070)	$ (8,333,517)	$ (7,842,625)	$ (9,979,554)	$ (14,726,518)	$ (19,230,086)	$ (20,514,642)	$ (18,431,393)	$ (15,307,918)	$ (12,911,267)
Date			12/31/2020	12/31/2021	12/31/2022	12/31/2023	12/31/2024	12/31/2025	12/31/2026	12/31/2027	12/31/2028	12/31/2029	12/31/2030

Revenue Requirments Summary
2009 Amended Plan
Project 30 Ghent Landfill Phase I
See Exhibit B

		2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
						Start Phase III						
Revenue Requirement		$ 11,000,000	$ 3,500,000			$ 19,750,000	$ 40,000,000	$ 40,000,000	$ 17,671,024			
Eligible Plant		$ 239,078,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 262,328,976	$ 302,328,976	$ 342,328,976	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
Less Gypsum Plant Requirements/Phase Delays		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Revised Eligible Plant		$ 239,078,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 262,328,976	$ 302,328,976	$ 342,328,976	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
Less Accumulated Depreciation		$ (46,706,992)	$ (53,474,945)	$ (60,242,897)	$ (67,010,850)	$ (74,329,828)	$ (82,764,806)	$ (92,315,784)	$ (102,359,783)	$ (112,403,782)	$ (122,447,782)	$ (132,491,781)
Less Deferred Tax Balance		$ (18,290,458)	$ (20,940,788)	$ (23,591,119)	$ (26,241,449)	$ (29,107,561)	$ (32,410,698)	$ (36,150,861)	$ (40,084,091)	$ (44,017,321)	$ (47,950,551)	$ (51,883,781)
Environmental Compliance Rate Base		$ 174,081,526	$ 168,163,243	$ 158,744,960	$ 149,326,677	$ 158,891,587	$ 187,153,472	$ 213,862,331	$ 217,556,126	$ 203,578,896	$ 189,601,667	$ 175,624,438
Rate of Return		10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
		$ 19,096,743	$ 18,447,508	$ 17,414,322	$ 16,381,136	$ 17,430,407	$ 20,530,736	$ 23,460,698	$ 23,865,907	$ 22,332,605	$ 20,799,303	$ 19,266,001
Difference	$ -	$ 27,051	$ 661,940							$ (1,912,962)		
Operating Expenses		$ 28,601,000	$ 30,979,000	$ 32,837,740	$ 34,808,004	$ 36,896,485	$ 39,110,274	$ 41,456,890	$ 43,944,304	$ 44,668,000	$ 47,348,080	$ 50,188,965
less Gypsum to On-site Landfill		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Gypsum to Sterling		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Net Operating		$ 28,601,000	$ 30,979,000	$ 32,837,740	$ 34,808,004	$ 36,896,485	$ 39,110,274	$ 41,456,890	$ 43,944,304	$ 44,668,000	$ 47,348,080	$ 50,188,965
Annual Depreciation		$ 6,670,303	$ 6,767,953	$ 6,767,953	$ 6,767,953	$ 7,318,978	$ 8,434,978	$ 9,550,978	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999
Annual Property Tax Expense		$ 295,558	$ 309,813	$ 314,348	$ 314,348	$ 314,348	$ 339,942	$ 391,776	$ 443,610	$ 466,510	$ 466,510	$ 466,510
Total OE		$ 35,566,861	$ 38,056,766	$ 39,920,041	$ 41,890,306	$ 44,529,811	$ 47,885,193	$ 51,399,644	$ 54,431,913	$ 55,178,509	$ 57,858,589	$ 60,699,474
Total E(m) Gypsum to On-site Landfill as Calculated	547,034,356	$ 54,663,605	$ 56,504,274	$ 57,334,363	$ 58,271,442	$ 61,960,218	$ 68,415,929	$ 74,860,342	$ 78,297,820	$ 77,511,114	$ 78,657,892	$ 79,965,474
Total E(m) Gypsum to On-site Landfill per KU												
Calculation Check Difference												
Site E/F Hauling cost of Ash 2.25 mile round trip		$ 4,244,332	$ 4,498,992	$ 4,768,931	$ 5,055,067	$ 5,358,371	$ 5,679,873	$ 6,020,666	$ 6,381,906	$ 6,764,820	$ 7,170,709	$ 7,600,952
Haul Road Maintenance		$ 80,488	$ 85,317	$ 90,436	$ 95,862	$ 101,614	$ 107,711	$ 114,174	$ 121,024	$ 128,285	$ 135,982	$ 144,141
Total		$ 4,324,820	$ 4,584,309	$ 4,859,367	$ 5,150,929	$ 5,459,985	$ 5,787,584	$ 6,134,839	$ 6,502,930	$ 6,893,105	$ 7,306,692	$ 7,745,093
Reduce by 50% for Site M		$ 2,162,410	$ 2,292,154	$ 2,429,684	$ 2,575,465	$ 2,729,993	$ 2,893,792	$ 3,067,420	$ 3,251,465	$ 3,446,553	$ 3,653,346	$ 3,872,547
Difference PVRR	**7.81%**	**$ (21,865,903)**										

Revenue Requirments Summary
Gypsum Disposal at Sterling Materials

			2031	2032	2033	2034	2035	2036	2037	
Revenue Requirement			$ 3,500,000							
Eligible Plant			$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	
Less Gypsum Plant Requirements/Phase Delays			$ (170,531,024)	$ (170,531,024)	$ (170,531,024)	$ (170,531,024)	$ (170,531,024)	$ (170,531,024)	$ (170,531,024)	
Revised Eligible Plant			$ 189,468,976	$ 189,468,976	$ 189,468,976	$ 189,468,976	$ 189,468,976	$ 189,468,976	$ 189,468,976	
Less Accumulated Depreciation			$ (81,902,606)	$ (87,188,790)	$ (92,474,974)	$ (97,761,158)	$ (103,047,342)	$ (108,333,526)	$ (113,619,710)	
Less Deferred Tax Balance			$ (32,073,060)	$ (34,143,130)	$ (36,213,200)	$ (38,283,269)	$ (40,353,339)	$ (42,423,409)	$ (44,493,479)	
Environmental Compliance Rate Base			$ 75,493,310	$ 68,137,056	$ 60,780,802	$ 53,424,548	$ 46,068,295	$ 38,712,041	$ 31,355,787	
Rate of Return			10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	
Assumed Tons (1.155)	1,000,000		$ 8,281,616	$ 7,474,635	$ 6,667,654	$ 5,860,673	$ 5,053,692	$ 4,246,711	$ 3,439,730	$ 259,765,660
86.7500% Cubic yards	867,500									
Operating Expenses			$ 53,200,303	$ 56,392,321	$ 59,775,860	$ 63,362,412	$ 67,164,156	$ 71,194,006	$ 75,465,646	
less Gypsum to On-site Landfill			$ (27,314,676)	$ (28,953,556)	$ (30,690,769)	$ (32,532,216)	$ (34,484,149)	$ (36,553,198)	$ (38,746,389)	
Gypsum to Sterling	$ 10.50		$ 29,970,561	$ 31,768,795	$ 33,674,922	$ 35,695,418	$ 37,837,143	$ 40,107,371	$ 42,513,814	
Net Operating			$ 55,856,188	$ 59,207,559	$ 62,760,013	$ 66,525,614	$ 70,517,151	$ 74,748,180	$ 79,233,071	
Annual Depreciation			$ 5,286,184	$ 5,286,184	$ 5,286,184	$ 5,286,184	$ 5,286,184	$ 5,286,184	$ 5,286,184	
Annual Property Tax Expense			$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	
Total OE			$ 61,608,882	$ 64,960,253	$ 68,512,707	$ 72,278,307	$ 76,269,844	$ 80,500,873	$ 84,985,764	
Total E(m) Gypsum to Sterling		$ 460,435,348	$ 69,890,498	$ 72,434,888	$ 75,180,361	$ 78,138,980	$ 81,323,536	$ 84,747,584	$ 88,425,494	$ 1,471,356,097
Total E(m) - Project 30 (See below)		$ 547,034,356	$ 81,443,510	$ 83,102,226	$ 84,952,464	$ 87,005,713	$ 89,274,156	$ 91,770,703	$ 94,509,041	$ 1,731,854,332
Difference PVRR	7.81%	$ (86,599,008)	$ (11,553,012)	$ (10,667,338)	$ (9,772,103)	$ (8,866,733)	$ (7,950,620)	$ (7,023,119)	$ (6,083,547)	$ (260,498,235)
Date			12/31/2031	12/31/2032	12/31/2033	12/31/2034	12/31/2035	12/31/2036	12/31/2037	

Revenue Requirments Summary
2009 Amended Plan
Project 30 Ghent Landfill Phase I
See Exhibit B

			2031	2032	2033	2034	2035	2036	2037	
Revenue Requirement										$ 117,421,024
Eligible Plant			$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	
Less Gypsum Plant Requirements/Phase Delays			$ -	$ -	$ -	$ -	$ -	$ -	$ -	
Revised Eligible Plant			$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	
Less Accumulated Depreciation			$ (142,535,780)	$ (152,579,779)	$ (162,623,779)	$ (172,667,778)	$ (182,711,777)	$ (192,755,777)	$ (202,799,776)	
Less Deferred Tax Balance			$ (55,817,012)	$ (59,750,242)	$ (63,683,472)	$ (67,616,702)	$ (71,549,932)	$ (75,483,162)	$ (79,416,392)	
Environmental Compliance Rate Base			$ 161,647,208	$ 147,669,979	$ 133,692,750	$ 119,715,520	$ 105,738,291	$ 91,761,061	$ 77,783,832	
Rate of Return			10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	
			$ 17,732,699	$ 16,199,397	$ 14,666,095	$ 13,132,793	$ 11,599,490	$ 10,066,188	$ 8,532,886	$ 482,133,777
Difference	$ -									
Operating Expenses			$ 53,200,303	$ 56,392,321	$ 59,775,860	$ 63,362,412	$ 67,164,156	$ 71,194,006	$ 75,465,646	
less Gypsum to On-site Landfill			$ -	$ -	$ -	$ -	$ -	$ -	$ -	
Gypsum to Sterling			$ -	$ -	$ -	$ -	$ -	$ -	$ -	
Net Operating			$ 53,200,303	$ 56,392,321	$ 59,775,860	$ 63,362,412	$ 67,164,156	$ 71,194,006	$ 75,465,646	
Annual Depreciation			$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	
Annual Property Tax Expense			$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	
Total OE			$ 63,710,812	$ 66,902,830	$ 70,286,369	$ 73,872,921	$ 77,674,665	$ 81,704,515	$ 85,976,155	$ 1,249,720,555
Total E(m) Gypsum to On-site Landfill as Calculated		547,034,356	$ 81,443,510	$ 83,102,226	$ 84,952,464	$ 87,005,713	$ 89,274,156	$ 91,770,703	$ 94,509,041	$ 1,731,854,332
Total E(m) Gypsum to On-site Landfill per KU										
Calculation Check Difference										
Site E/F Hauling cost of Ash 2.25 mile round trip			$ 8,057,009	$ 8,540,429	$ 9,052,855	$ 9,596,026	$ 10,171,788	$ 10,782,095	$ 11,429,021	
Haul Road Maintenance			$ 152,790	$ 161,957	$ 171,675	$ 181,975	$ 192,894	$ 204,467	$ 216,735	
Total			$ 8,209,799	$ 8,702,387	$ 9,224,530	$ 9,778,002	$ 10,364,682	$ 10,986,563	$ 11,645,756	
Reduce by 50% for Site M			$ 4,104,899	$ 4,351,193	$ 4,612,265	$ 4,889,001	$ 5,182,341	$ 5,493,281	$ 5,822,878	
Difference PVRR	7.81%	$ (21,865,903)								

Revenue Requirments Summary
Gypsum Disposal at Sterling Materials

			2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Revenue Requirement													
Eligible Plant			$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 203,078,976	$ 204,078,976	$ 212,078,976	$ 228,078,976
Less Gypsum Plant Requirements/Phase Delays			$ -	$ (14,090,000)	$ (40,060,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,610,000)	$ (53,610,000)	$ (54,610,000)	$ (62,610,000)	$ (78,610,000)
Revised Eligible Plant			$ 4,321,671	$ 32,388,846	$ 65,425,803	$ 124,467,356	$ 138,023,918	$ 148,831,953	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976
Less Accumulated Depreciation							$ (3,690,414)	$ (7,842,826)	$ (12,013,010)	$ (16,183,194)	$ (20,353,378)	$ (24,523,563)	$ (28,693,747)
Less Deferred Tax Balance							$ (528,683)	$ (2,857,926)	$ (4,921,730)	$ (6,724,117)	$ (8,277,719)	$ (9,603,427)	$ (11,236,471)
Environmental Compliance Rate Base			$ 4,321,671	$ 32,388,846	$ 65,425,803	$ 124,467,356	$ 133,804,821	$ 138,131,202	$ 132,534,236	$ 126,561,665	$ 120,837,879	$ 115,341,986	$ 109,538,758
Rate of Return			11.1%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
Assumed Tons (1.155)	1,000,000		$ 480,509	$ 3,553,056	$ 7,177,211	$ 13,654,069	$ 14,678,389	$ 15,152,993	$ 14,539,006	$ 13,883,815	$ 13,255,915	$ 12,658,016	$ 12,016,402
86.7500% Cubic yards	867,500												
Operating Expenses			$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,556
less Gypsum to On-site Landfill							$ (9,569,527)	$ (10,143,699)	$ (10,752,321)	$ (11,397,460)	$ (12,081,307)	$ (12,806,186)	$ (13,574,557)
Gypsum to Sterling	$ 9.00						$ 9,000,000	$ 9,540,000	$ 10,112,400	$ 10,719,144	$ 11,362,293	$ 12,044,030	$ 12,766,672
Net Operating			$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 18,433,781	$ 19,539,808	$ 20,712,196	$ 21,954,928	$ 23,272,224	$ 24,668,557	$ 26,148,671
Annual Depreciation							$ 3,690,414	$ 4,152,411	$ 4,170,184	$ 4,170,185	$ 4,170,184	$ 4,170,184	$ 4,170,184
Annual Property Tax Expense				$ 6,483	$ 69,718	$ 158,229	$ 266,366	$ 279,017	$ 286,798	$ 279,274	$ 271,517	$ 264,458	$ 274,825
Total OE			$ 84,800	$ 127,832	$ 198,348	$ 294,577	$ 22,390,561	$ 23,971,237	$ 25,169,179	$ 26,404,387	$ 27,713,925	$ 29,103,199	$ 30,593,680
Total E(m) Gypsum to Sterling		$ 437,628,685	$ 565,309	$ 3,680,888	$ 7,375,559	$ 13,948,646	$ 37,068,950	$ 39,124,230	$ 39,708,184	$ 40,288,201	$ 40,969,840	$ 41,756,215	$ 42,610,081
Total E(m) - Project 30 (See below)		$ 547,034,356	$ 565,309	$ 5,226,561	$ 11,770,141	$ 19,774,813	$ 44,706,579	$ 46,601,539	$ 46,978,148	$ 47,430,316	$ 48,060,812	$ 49,736,723	$ 52,508,105
Difference **PVRR**	**7.81%**	**$ (109,405,671)**	$ -	$ (1,545,673)	$ (4,394,582)	$ (5,826,167)	$ (7,637,629)	$ (7,477,309)	$ (7,269,964)	$ (7,142,114)	$ (7,090,972)	$ (7,980,508)	$ (9,898,024)
Date			12/31/2009	12/31/2010	12/31/2011	12/31/2012	12/31/2013	12/31/2014	12/31/2015	12/31/2016	12/31/2017	12/31/2018	12/31/2019

Revenue Requirments Summary
2009 Amended Plan
Project 30 Ghent Landfill Phase I
See Exhibit B

		2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
									Start Phase II			
Revenue Requirement									$ 500,000	$ 1,000,000	$ 8,000,000	$ 16,000,000
Eligible Plant		$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 203,078,976	$ 204,078,976	$ 212,078,976	$ 228,078,976
Less Gypsum Plant Requirements/Phase Delays		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Revised Eligible Plant		$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 203,078,976	$ 204,078,976	$ 212,078,976	$ 228,078,976
Less Accumulated Depreciation						$ (5,110,443)	$ (10,744,623)	$ (16,396,576)	$ (22,062,480)	$ (27,756,283)	$ (33,673,286)	$ (40,036,689)
Less Deferred Tax Balance						$ (732,114)	$ (3,915,341)	$ (6,717,677)	$ (9,166,960)	$ (11,288,480)	$ (13,186,459)	$ (15,678,367)
Environmental Compliance Rate Base		$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 185,291,361	$ 187,281,989	$ 179,464,723	$ 171,849,536	$ 165,034,213	$ 165,219,232	$ 172,363,920
Rate of Return		11.1%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
		$ 480,509	$ 5,098,729	$ 11,571,793	$ 19,480,236	$ 20,326,462	$ 20,544,834	$ 19,687,280	$ 18,851,894	$ 18,104,253	$ 18,124,550	$ 18,908,322
Difference	$ -											
Operating Expenses		$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,556
less Gypsum to On-site Landfill						$ -	$ -	$ -	$ -	$ -	$ -	$ -
Gypsum to Sterling						$ -	$ -	$ -	$ -	$ -	$ -	$ -
Net Operating		$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,556
Annual Depreciation						$ 5,110,443	$ 5,634,180	$ 5,651,953	$ 5,665,904	$ 5,693,803	$ 5,917,003	$ 6,363,403
Annual Property Tax Expense			$ 6,483	$ 69,718	$ 158,229	$ 266,366	$ 279,017	$ 286,798	$ 279,274	$ 271,517	$ 264,458	$ 274,825
Total OE		$ 84,800	$ 127,832	$ 198,348	$ 294,577	$ 24,380,117	$ 26,056,704	$ 27,290,868	$ 28,578,421	$ 29,956,559	$ 31,612,174	$ 33,594,783
Total E(m) Gypsum to On-site Landfill as Calculated	547,034,356	$ 565,309	$ 5,226,561	$ 11,770,141	$ 19,774,813	$ 44,706,579	$ 46,601,539	$ 46,978,148	$ 47,430,316	$ 48,060,812	$ 49,736,723	$ 52,508,105
Total E(m) Gypsum to On-site Landfill per KU		$ 565,309	$ 5,226,225	$ 11,769,378	$ 19,773,528	$ 44,705,239	$ 46,600,208	$ 46,976,843	$ 47,458,553	$ 48,044,547	$ 48,653,648	
Calculation Check Difference		$ -	$ 336	$ 763	$ 1,285	$ 1,340	$ 1,331	$ 1,305	$ (28,237)	$ 16,265	$ 1,083,075	
Site E/F Hauling cost of Ash 2.25 mile round trip						$ 2,822,723	$ 2,992,086	$ 3,171,612	$ 3,361,908	$ 3,563,623	$ 3,777,440	$ 4,004,087
Haul Road Maintenance						$ 53,529	$ 56,741	$ 60,145	$ 63,754	$ 67,579	$ 71,634	$ 75,932
Total						$ 2,876,252	$ 3,048,827	$ 3,231,757	$ 3,425,662	$ 3,631,202	$ 3,849,074	$ 4,080,018
Reduce by 50% for Site M		$ -	$ -	$ -	$ -	$ 1,438,126	$ 1,524,414	$ 1,615,878	$ 1,712,831	$ 1,815,601	$ 1,924,537	$ 2,040,009
Difference **PVRR**	**7.81%**	**$ (21,865,903)**										

Revenue Requirments Summary
Gypsum Disposal at Sterling Materials

			2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
									Start Phase II				
Revenue Requirement									$ 500,000	$ 1,000,000	$ 8,000,000	$ 16,000,000	$ 11,000,000
Eligible Plant			$ 239,078,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 262,328,976	$ 302,328,976	$ 342,328,976	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
Less Gypsum Plant Requirements/Phase Delays			$ (89,610,000)	$ (93,110,000)	$ (93,110,000)	$ (93,110,000)	$ (112,860,000)	$ (152,860,000)	$ (192,360,000)	$ (209,031,024)	$ (201,031,024)	$ (185,031,024)	$ (174,031,024)
Revised Eligible Plant			$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,968,976	$ 150,968,976	$ 158,968,976	$ 174,968,976	$ 185,968,976
Less Accumulated Depreciation			$ (32,863,931)	$ (37,034,115)	$ (41,204,299)	$ (45,374,483)	$ (49,544,667)	$ (53,714,851)	$ (57,898,986)	$ (62,111,020)	$ (65,546,254)	$ (71,427,888)	$ (76,616,422)
Less Deferred Tax Balance			$ (12,869,515)	$ (14,502,559)	$ (16,135,603)	$ (17,768,648)	$ (19,401,692)	$ (21,034,736)	$ (22,673,243)	$ (24,322,675)	$ (26,059,513)	$ (27,971,161)	$ (30,002,991)
Environmental Compliance Rate Base			$ 103,735,530	$ 97,932,302	$ 92,129,073	$ 86,325,845	$ 80,522,617	$ 74,719,389	$ 69,396,748	$ 64,535,281	$ 66,363,209	$ 75,569,927	$ 79,349,563
Rate of Return			10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
Assumed Tons (1.155)	1,000,000		$ 11,379,788	$ 10,743,173	$ 10,106,559	$ 9,469,945	$ 8,833,331	$ 8,196,717	$ 7,612,823	$ 7,079,520	$ 7,280,044	$ 8,290,021	$ 8,704,647
86.7500% Cubic yards	867,500		$ 27,051	$ 661,940							$ (1,912,962)		
Operating Expenses			$ 28,601,000	$ 30,979,000	$ 32,837,740	$ 34,808,004	$ 36,896,485	$ 39,110,274	$ 41,456,890	$ 43,944,304	$ 44,668,000	$ 47,348,080	$ 50,188,965
less Gypsum to On-site Landfill			$ (14,389,030)	$ (15,252,372)	$ (16,167,515)	$ (17,137,565)	$ (18,165,819)	$ (19,255,768)	$ (20,411,115)	$ (21,635,781)	$ (22,933,928)	$ (24,309,964)	$ (25,768,562)
Gypsum to Sterling	$ 9.00		$ 13,532,672	$ 14,344,633	$ 15,205,311	$ 16,117,629	$ 17,084,687	$ 18,109,768	$ 19,196,354	$ 20,348,136	$ 21,569,024	$ 22,863,165	$ 24,234,955
Net Operating			$ 27,744,642	$ 30,071,260	$ 31,875,536	$ 33,788,068	$ 35,815,352	$ 37,964,274	$ 40,242,130	$ 42,656,658	$ 43,303,095	$ 45,901,281	$ 48,655,358
Annual Depreciation			$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,184,134	$ 4,212,034	$ 4,435,234	$ 4,881,634	$ 5,188,534
Annual Property Tax Expense			$ 295,558	$ 309,813	$ 314,348	$ 314,348	$ 314,348	$ 339,942	$ 391,776	$ 443,610	$ 466,510	$ 466,510	$ 466,510
Total OE			$ 32,210,385	$ 34,551,257	$ 36,360,069	$ 38,272,601	$ 40,299,885	$ 42,474,399	$ 44,818,040	$ 47,312,302	$ 48,204,839	$ 51,249,425	$ 54,310,402
Total E(m) Gypsum to Sterling		$ 437,628,685	$ 43,590,172	$ 45,294,431	$ 46,466,628	$ 47,742,546	$ 49,133,216	$ 50,671,116	$ 52,430,863	$ 54,391,823	$ 55,484,883	$ 59,539,446	$ 63,015,049
Total E(m) - Project 30 (See below)		$ 547,034,356	$ 54,663,605	$ 56,504,274	$ 57,334,363	$ 58,271,442	$ 61,960,218	$ 68,415,929	$ 74,860,342	$ 78,297,820	$ 77,511,114	$ 78,657,892	$ 79,965,474
Difference	PVRR 7.81%	$ (109,405,671)	$ (11,073,433)	$ (11,209,843)	$ (10,867,735)	$ (10,528,896)	$ (12,827,002)	$ (17,744,813)	$ (22,429,478)	$ (23,905,998)	$ (22,026,231)	$ (19,118,446)	$ (16,950,426)
Date			12/31/2020	12/31/2021	12/31/2022	12/31/2023	12/31/2024	12/31/2025	12/31/2026	12/31/2027	12/31/2028	12/31/2029	12/31/2030

Revenue Requirments Summary
2009 Amended Plan
Project 30 Ghent Landfill Phase I
See Exhibit B

		2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
						Start Phase III						
Revenue Requirement		$ 11,000,000	$ 3,500,000			$ 19,750,000	$ 40,000,000	$ 40,000,000	$ 17,671,024			
Eligible Plant		$ 239,078,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 262,328,976	$ 302,328,976	$ 342,328,976	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
Less Gypsum Plant Requirements/Phase Delays		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Revised Eligible Plant		$ 239,078,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 262,328,976	$ 302,328,976	$ 342,328,976	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
Less Accumulated Depreciation		$ (46,706,992)	$ (53,474,945)	$ (60,242,897)	$ (67,010,850)	$ (74,329,828)	$ (82,764,806)	$ (92,315,784)	$ (102,359,783)	$ (112,403,782)	$ (122,447,782)	$ (132,491,781)
Less Deferred Tax Balance		$ (18,290,458)	$ (20,940,788)	$ (23,591,119)	$ (26,241,449)	$ (29,107,561)	$ (32,410,698)	$ (36,150,861)	$ (40,084,091)	$ (44,017,321)	$ (47,950,551)	$ (51,883,781)
Environmental Compliance Rate Base		$ 174,081,526	$ 168,163,243	$ 158,744,960	$ 149,326,677	$ 158,891,587	$ 187,153,472	$ 213,862,331	$ 217,556,126	$ 203,578,896	$ 189,601,667	$ 175,624,438
Rate of Return		10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
		$ 19,096,743	$ 18,447,508	$ 17,414,322	$ 16,381,136	$ 17,430,407	$ 20,530,736	$ 23,460,698	$ 23,865,907	$ 22,332,605	$ 20,799,303	$ 19,266,001
Difference	$ -	$ 27,051	$ 661,940							$ (1,912,962)		
Operating Expenses		$ 28,601,000	$ 30,979,000	$ 32,837,740	$ 34,808,004	$ 36,896,485	$ 39,110,274	$ 41,456,890	$ 43,944,304	$ 44,668,000	$ 47,348,080	$ 50,188,965
less Gypsum to On-site Landfill		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Gypsum to Sterling		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Net Operating		$ 28,601,000	$ 30,979,000	$ 32,837,740	$ 34,808,004	$ 36,896,485	$ 39,110,274	$ 41,456,890	$ 43,944,304	$ 44,668,000	$ 47,348,080	$ 50,188,965
Annual Depreciation		$ 6,670,303	$ 6,767,953	$ 6,767,953	$ 6,767,953	$ 7,318,978	$ 8,434,978	$ 9,550,978	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999
Annual Property Tax Expense		$ 295,558	$ 309,813	$ 314,348	$ 314,348	$ 314,348	$ 339,942	$ 391,776	$ 443,610	$ 466,510	$ 466,510	$ 466,510
Total OE		$ 35,566,861	$ 38,056,766	$ 39,920,041	$ 41,890,306	$ 44,529,811	$ 47,885,193	$ 51,399,644	$ 54,431,913	$ 55,178,509	$ 57,858,589	$ 60,699,474
Total E(m) Gypsum to On-site Landfill as Calculated	547,034,356	$ 54,663,605	$ 56,504,274	$ 57,334,363	$ 58,271,442	$ 61,960,218	$ 68,415,929	$ 74,860,342	$ 78,297,820	$ 77,511,114	$ 78,657,892	$ 79,965,474
Total E(m) Gypsum to On-site Landfill per KU												
Calculation Check Difference												
Site E/F Hauling cost of Ash 2.25 mile round trip		$ 4,244,332	$ 4,498,992	$ 4,768,931	$ 5,055,067	$ 5,358,371	$ 5,679,873	$ 6,020,666	$ 6,381,906	$ 6,764,820	$ 7,170,709	$ 7,600,952
Haul Road Maintenance		$ 80,488	$ 85,317	$ 90,436	$ 95,862	$ 101,614	$ 107,711	$ 114,174	$ 121,024	$ 128,285	$ 135,982	$ 144,141
Total		$ 4,324,820	$ 4,584,309	$ 4,859,367	$ 5,150,929	$ 5,459,985	$ 5,787,584	$ 6,134,839	$ 6,502,930	$ 6,893,105	$ 7,306,692	$ 7,745,093
Reduce by 50% for Site M		$ 2,162,410	$ 2,292,154	$ 2,429,684	$ 2,575,465	$ 2,729,993	$ 2,893,792	$ 3,067,420	$ 3,251,465	$ 3,446,553	$ 3,653,346	$ 3,872,547
Difference	PVRR 7.81% $ (21,865,903)											

Revenue Requirments Summary
Gypsum Disposal at Sterling Materials

			2031	2032	2033	2034	2035	2036	2037	
Revenue Requirement			$ 3,500,000							
Eligible Plant			$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	
Less Gypsum Plant Requirements/Phase Delays			$ (170,531,024)	$ (170,531,024)	$ (170,531,024)	$ (170,531,024)	$ (170,531,024)	$ (170,531,024)	$ (170,531,024)	
Revised Eligible Plant			$ 189,468,976	$ 189,468,976	$ 189,468,976	$ 189,468,976	$ 189,468,976	$ 189,468,976	$ 189,468,976	
Less Accumulated Depreciation			$ (81,902,606)	$ (87,188,790)	$ (92,474,974)	$ (97,761,158)	$ (103,047,342)	$ (108,333,526)	$ (113,619,710)	
Less Deferred Tax Balance			$ (32,073,060)	$ (34,143,130)	$ (36,213,200)	$ (38,283,269)	$ (40,353,339)	$ (42,423,409)	$ (44,493,479)	
Environmental Compliance Rate Base			$ 75,493,310	$ 68,137,056	$ 60,780,802	$ 53,424,548	$ 46,068,295	$ 38,712,041	$ 31,355,787	
Rate of Return			10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	
Assumed Tons (1.155)	1,000,000		$ 8,281,616	$ 7,474,635	$ 6,667,654	$ 5,860,673	$ 5,053,692	$ 4,246,711	$ 3,439,730	$ 259,765,660
86.7500% Cubic yards	867,500									
Operating Expenses			$ 53,200,303	$ 56,392,321	$ 59,775,860	$ 63,362,412	$ 67,164,156	$ 71,194,006	$ 75,465,646	
less Gypsum to On-site Landfill			$ (27,314,676)	$ (28,953,556)	$ (30,690,769)	$ (32,532,216)	$ (34,484,149)	$ (36,553,198)	$ (38,746,389)	
Gypsum to Sterling	$ 9.00		$ 25,689,052	$ 27,230,396	$ 28,864,219	$ 30,596,072	$ 32,431,837	$ 34,377,747	$ 36,440,412	
Net Operating			$ 51,574,679	$ 54,669,160	$ 57,949,310	$ 61,426,268	$ 65,111,845	$ 69,018,555	$ 73,159,669	
Annual Depreciation			$ 5,286,184	$ 5,286,184	$ 5,286,184	$ 5,286,184	$ 5,286,184	$ 5,286,184	$ 5,286,184	
Annual Property Tax Expense			$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	
Total OE			$ 57,327,373	$ 60,421,854	$ 63,702,004	$ 67,178,962	$ 70,864,538	$ 74,771,249	$ 78,912,362	
Total E(m) Gypsum to Sterling		$ 437,628,685	$ 65,608,989	$ 67,896,489	$ 70,369,657	$ 73,039,635	$ 75,918,230	$ 79,017,960	$ 82,352,092	$ 1,389,059,329
Total E(m) - Project 30 (See below)		$ 547,034,356	$ 81,443,510	$ 83,102,226	$ 84,952,464	$ 87,005,713	$ 89,274,156	$ 91,770,703	$ 94,509,041	$ 1,731,854,332
Difference	PVRR	7.81% $ (109,405,671)	$ (15,834,521)	$ (15,205,737)	$ (14,582,806)	$ (13,966,078)	$ (13,355,926)	$ (12,752,743)	$ (12,156,949)	$ (342,795,003)
Date			12/31/2031	12/31/2032	12/31/2033	12/31/2034	12/31/2035	12/31/2036	12/31/2037	

Revenue Requirments Summary
2009 Amended Plan
Project 30 Ghent Landfill Phase I
See Exhibit B

			2031	2032	2033	2034	2035	2036	2037	
Revenue Requirement										$ 117,421,024
Eligible Plant			$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	
Less Gypsum Plant Requirements/Phase Delays			$ -	$ -	$ -	$ -	$ -	$ -	$ -	
Revised Eligible Plant			$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	
Less Accumulated Depreciation			$ (142,535,780)	$ (152,579,779)	$ (162,623,779)	$ (172,667,778)	$ (182,711,777)	$ (192,755,777)	$ (202,799,776)	
Less Deferred Tax Balance			$ (55,817,012)	$ (59,750,242)	$ (63,683,472)	$ (67,616,702)	$ (71,549,932)	$ (75,483,162)	$ (79,416,392)	
Environmental Compliance Rate Base			$ 161,647,208	$ 147,669,979	$ 133,692,750	$ 119,715,520	$ 105,738,291	$ 91,761,061	$ 77,783,832	
Rate of Return			10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	
			$ 17,732,699	$ 16,199,397	$ 14,666,095	$ 13,132,793	$ 11,599,490	$ 10,066,188	$ 8,532,886	$ 482,133,777
Difference	$ -									
Operating Expenses			$ 53,200,303	$ 56,392,321	$ 59,775,860	$ 63,362,412	$ 67,164,156	$ 71,194,006	$ 75,465,646	
less Gypsum to On-site Landfill			$ -	$ -	$ -	$ -	$ -	$ -	$ -	
Gypsum to Sterling			$ -	$ -	$ -	$ -	$ -	$ -	$ -	
Net Operating			$ 53,200,303	$ 56,392,321	$ 59,775,860	$ 63,362,412	$ 67,164,156	$ 71,194,006	$ 75,465,646	
Annual Depreciation			$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	
Annual Property Tax Expense			$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	
Total OE			$ 63,710,812	$ 66,902,830	$ 70,286,369	$ 73,872,921	$ 77,674,665	$ 81,704,515	$ 85,976,155	$ 1,249,720,555
Total E(m) Gypsum to On-site Landfill as Calculated		547,034,356	$ 81,443,510	$ 83,102,226	$ 84,952,464	$ 87,005,713	$ 89,274,156	$ 91,770,703	$ 94,509,041	$ 1,731,854,332
Total E(m) Gypsum to On-site Landfill per KU										
Calculation Check Difference										
Site E/F Hauling cost of Ash 2.25 mile round trip			$ 8,057,009	$ 8,540,429	$ 9,052,855	$ 9,596,026	$ 10,171,788	$ 10,782,095	$ 11,429,021	
Haul Road Maintenance			$ 152,790	$ 161,957	$ 171,675	$ 181,975	$ 192,894	$ 204,467	$ 216,735	
Total			$ 8,209,799	$ 8,702,387	$ 9,224,530	$ 9,778,002	$ 10,364,682	$ 10,986,563	$ 11,645,756	
Reduce by 50% for Site M			$ 4,104,899	$ 4,351,193	$ 4,612,265	$ 4,889,001	$ 5,182,341	$ 5,493,781	$ 5,822,878	
Difference	PVRR	7.81% $ (21,865,903)								

Annual Revenue Requirements - Ghent Landfill - KU Project 30										
	Capital					O&M				Total
	Phase 1	Phase 2	Phase 3	Final Cap	Total	Non-Power	Power	Beneficial Reuse	Total O&M	
12/31/2009	480,509	-	-		480,509		84,800		84,800	565,309
12/31/2010	5,098,729	-	-		5,098,729		127,832		127,832	5,226,561
12/31/2011	11,571,793	-	-		11,571,793		198,348		198,348	11,770,141
12/31/2012	19,480,236	-	-		19,480,236		294,577		294,577	19,774,813
12/31/2013	20,326,462	-	-		20,326,462		24,380,117		24,380,117	44,706,579
12/31/2014	20,544,834	-	-		20,544,834		26,056,704		26,056,704	46,601,539
12/31/2015	19,687,280	-	-		19,687,280		27,290,868		27,290,868	46,978,148
12/31/2016	18,799,210	52,684	-		18,851,894		28,578,421		28,578,421	47,430,316
12/31/2017	17,948,314	155,939	-		18,104,253		29,956,559		29,956,559	48,060,812
12/31/2018	17,131,380	993,170	-		18,124,550		31,612,174		31,612,174	49,736,723
12/31/2019	16,268,561	2,639,761	-		18,908,322		33,594,783		33,594,783	52,503,105
12/31/2020	15,405,743	3,691,001	-		19,096,743		35,566,861		35,566,861	54,663,605
12/31/2021	14,542,924	3,904,584	-		18,447,508		38,056,766		38,056,766	56,504,274
12/31/2022	13,680,105	3,734,217	-		17,414,322		39,920,041		39,920,041	57,334,363
12/31/2023	12,817,286	3,563,850	-		16,381,136		41,890,306		41,890,306	58,271,442
12/31/2024	11,954,467	3,393,483	2,082,456		17,430,407		44,529,811		44,529,811	61,960,218
12/31/2025	11,091,649	3,223,116	6,215,971		20,530,736		47,885,193		47,885,193	68,415,929
12/31/2026	10,228,830	3,052,749	10,179,118		23,460,698		51,399,644		51,399,644	74,860,342
12/31/2027	9,366,011	2,882,383	11,617,513		23,865,907		54,431,913		54,431,913	78,297,820
12/31/2028	8,503,192	2,712,016	11,117,397		22,332,605		55,178,509		55,178,509	77,511,114
12/31/2029	7,640,374	2,541,649	10,617,281		20,799,303		57,858,589		57,858,589	78,657,892
12/31/2030	6,777,555	2,371,282	10,117,164		19,266,001		60,699,474		60,699,474	79,965,474
12/31/2031	5,914,736	2,200,915	9,617,048		17,732,699		63,710,812		63,710,812	81,443,510
12/31/2032	5,051,917	2,030,548	9,116,931		16,199,397		66,902,830		66,902,830	83,102,226
12/31/2033	4,189,098	1,860,181	8,616,815		14,666,095		70,286,369		70,286,369	84,952,464
12/31/2034	3,326,280	1,689,814	8,116,699		13,132,793		73,872,921		73,872,921	87,005,713
12/31/2035	2,463,461	1,519,447	7,616,582		11,599,490		77,674,665		77,674,665	89,274,156
12/31/2036	1,600,642	1,349,080	7,116,466		10,066,188		81,704,515		81,704,515	91,770,703
12/31/2037	737,823	1,178,714	6,616,349		8,532,886		85,976,155		85,976,155	94,509,041
2009 PVRR	153,383,226	14,945,173	24,389,184		192,717,582		354,316,774		354,316,774	547,034,356
Cubic Yards	9,542,500	6,072,500	9,542,500		25,157,500		25,157,500		25,157,500	25,157,500
									$/CY (PVRR)	$ 21.74

Annual Revenue Requirements - Ghent Landfill - KU Project 30 with Beneficial Reuse -Sterling Ventures Mine											
	Capital					O&M				Total	
	Phase 1	Phase 2	Phase 3	Final Cap	Total	Non-Power	Power	Beneficial Reuse	Total O&M		
12/31/2009	480,509	-	-		480,509		84,800	-	84,800	565,309	
12/31/2010	3,553,056	-	-		3,553,056		127,832	-	127,832	3,680,888	
12/31/2011	7,177,211	-	-		7,177,211		198,348	-	198,348	7,375,559	
12/31/2012	13,654,069	-	-		13,654,069		294,577	-	294,577	13,948,646	
12/31/2013	14,678,389	-	-		14,678,389		24,380,117	(489,556)	23,890,561	38,568,950	
12/31/2014	15,152,993	-	-		15,152,993		26,056,704	(495,467)	25,561,237	40,714,230	
12/31/2015	14,539,006	-	-		14,539,006		27,290,868	(436,289)	26,854,579	41,393,584	
12/31/2016	13,883,815	-	-		13,883,815		28,578,421	(387,511)	28,190,911	42,074,725	
12/31/2017	13,255,915	-	-		13,255,915		29,956,559	(348,918)	29,607,640	42,863,556	
12/31/2018	12,653,016	-	-		12,653,016		31,612,174	(501,636)	31,110,538	43,763,554	
12/31/2019	12,016,402	-	-		12,016,402		33,594,783	(873,325)	32,721,458	44,737,860	
12/31/2020	11,379,788	-	-		11,379,788		35,566,861	(1,101,031)	34,465,830	45,845,618	
12/31/2021	10,743,173	-	-		10,743,173		38,056,766	(1,114,736)	36,942,030	47,685,203	
12/31/2022	10,106,559	-	-		10,106,559		39,920,041	(1,025,754)	38,894,287	49,000,846	
12/31/2023	9,469,945	-	-		9,469,945		41,890,306	(931,433)	40,958,872	50,428,818	
12/31/2024	8,833,331	-	-		8,833,331		44,529,811	(1,382,478)	43,147,333	51,980,664	
12/31/2025	8,196,717	-	-		8,196,717		47,885,193	(2,392,499)	45,492,694	53,689,411	
12/31/2026	7,560,103	52,720	-		7,612,823		51,399,644	(3,382,211)	48,017,432	55,630,256	
12/31/2027	6,923,489	156,032	-		7,079,520		54,431,913	(3,728,255)	50,703,658	57,783,179	
12/31/2028	6,286,875	993,170	-		7,280,044		55,178,509	(3,378,832)	51,799,676	59,079,720	
12/31/2029	5,650,260	2,639,761	-		8,290,021		57,858,589	(2,798,637)	55,059,952	63,349,973	
12/31/2030	5,013,646	3,691,001	-		8,704,647		60,699,474	(2,349,913)	58,349,561	67,054,208	
12/31/2031	4,377,032	3,904,584	-		8,281,616		63,710,812	(2,101,930)	61,608,882	69,890,498	
12/31/2032	3,740,418	3,734,217	-		7,474,635		66,902,830	(1,942,577)	64,960,253	72,434,888	
12/31/2033	3,103,804	3,563,850	-		6,667,654		70,286,369	(1,773,662)	68,512,707	75,180,361	
12/31/2034	2,467,190	3,393,483	-		5,860,673		73,872,921	(1,594,613)	72,278,307	78,138,980	
12/31/2035	1,830,576	3,223,116	-		5,053,692		77,674,665	(1,404,821)	76,269,844	81,323,536	
12/31/2036	1,193,961	3,052,749	-		4,246,711		81,704,515	(1,203,641)	80,500,873	84,747,584	
12/31/2037	557,347	2,882,383	-		3,439,730		85,976,155	(990,391)	84,985,764	88,425,494	
2009 PVRR	111,212,472	5,355,077	-		116,567,550		354,316,774	(10,448,976)	343,867,798	460,435,348	
Cubic Yards	17,350,000	7,807,500			25,157,500		25,157,500		25,157,500	25,157,500	
									$/CY (PVRR)	$ 18.30	

CASE	Option 30	Option 30 with Beneficial Reuse
PVRR		
Capital	$ 192,717,582	$ 116,567,550
O&M	354,316,774	343,867,798
Total	$ 547,034,356	$ 460,435,348
Delta to Least Cost	$ 86,599,008	Least Cost
Unit Cost (2009 PVRR $/CY)	$ 21.74	$ 18.30

NOTE-This Table Requires $9.00 Price Inserted Into cell D16 of PVRR Analysis

Annual Revenue Requirements - Ghent Landfill - KU Project 30 with Beneficial Reuse -Sterling Ventures Mine With Scrubber Stone Backhaul

	Capital					O&M				Total
	Phase 1	Phase 2	Phase 3	Final Cap	Total	Non-Power	Power	Beneficial Reuse	Total O&M	
12/31/2009	480,509	-	-		480,509		84,800	-	84,800	565,309
12/31/2010	3,553,056	-	-		3,553,056		127,832	-	127,832	3,680,888
12/31/2011	7,177,211	-	-		7,177,211		198,348	-	198,348	7,375,559
12/31/2012	13,654,069	-	-		13,654,069		294,577	-	294,577	13,948,646
12/31/2013	14,678,389	-	-		14,678,389		24,380,117	(1,989,556)	22,390,561	37,068,950
12/31/2014	15,152,993	-	-		15,152,993		26,056,704	(2,085,467)	23,971,237	39,124,230
12/31/2015	14,539,006	-	-		14,539,006		27,290,868	(2,121,689)	25,169,179	39,708,184
12/31/2016	13,883,815	-	-		13,883,815		28,578,421	(2,174,035)	26,404,387	40,288,201
12/31/2017	13,255,915	-	-		13,255,915		29,956,559	(2,242,634)	27,713,925	40,969,840
12/31/2018	12,653,016	-	-		12,653,016		31,612,174	(2,508,974)	29,103,199	41,756,215
12/31/2019	12,016,402	-	-		12,016,402		33,594,783	(3,001,104)	30,593,680	42,610,081
12/31/2020	11,379,788	-	-		11,379,788		35,566,861	(3,356,477)	32,210,385	43,590,172
12/31/2021	10,743,173	-	-		10,743,173		38,056,766	(3,505,508)	34,551,257	45,294,431
12/31/2022	10,106,559	-	-		10,106,559		39,920,041	(3,559,973)	36,360,069	46,466,628
12/31/2023	9,469,945	-	-		9,469,945		41,890,306	(3,617,705)	38,272,601	47,742,546
12/31/2024	8,833,331	-	-		8,833,331		44,529,811	(4,229,926)	40,299,885	49,133,216
12/31/2025	8,196,717	-	-		8,196,717		47,885,193	(5,410,794)	42,474,399	50,671,116
12/31/2026	7,560,103	52,720	-		7,612,823		51,399,644	(6,581,604)	44,818,040	52,430,863
12/31/2027	6,923,489	156,032	-		7,079,520		54,431,913	(7,119,611)	47,312,302	54,391,823
12/31/2028	6,286,875	993,170	-		7,280,044		55,178,509	(6,973,670)	48,204,839	55,484,883
12/31/2029	5,650,260	2,639,761	-		8,290,021		57,858,589	(6,609,164)	51,249,425	59,539,446
12/31/2030	5,013,646	3,691,001	-		8,704,647		60,699,474	(6,389,072)	54,310,402	63,015,049
12/31/2031	4,377,032	3,904,584	-		8,281,616		63,710,812	(6,383,438)	57,327,373	65,608,989
12/31/2032	3,740,418	3,734,217	-		7,474,635		66,902,830	(6,480,976)	60,421,854	67,896,489
12/31/2033	3,103,804	3,563,850	-		6,667,654		70,286,369	(6,584,365)	63,702,004	70,369,657
12/31/2034	2,467,190	3,393,483	-		5,860,673		73,872,921	(6,693,958)	67,178,962	73,039,635
12/31/2035	1,830,576	3,223,116	-		5,053,692		77,674,665	(6,810,127)	70,864,538	75,918,230
12/31/2036	1,193,961	3,052,749	-		4,246,711		81,704,515	(6,933,266)	74,771,249	79,017,960
12/31/2037	557,347	2,882,383	-		3,439,730		85,976,155	(7,063,793)	78,912,362	82,352,092
2009 PVRR	111,212,472	5,355,077	-		116,567,550		354,316,774	(33,255,638)	321,061,136	437,628,685
Cubic Yards	17,350,000	7,807,500			25,157,500		25,157,500		25,157,500	25,157,500
									$/CY (PVRR)	$ 17.40

CASE	Option 30	Option 30 with Benefical Reuse
PVRR		
Capital	$ 192,717,582	$ 116,567,550
O&M	354,316,774	321,061,136
Total	$ 547,034,356	$ 437,628,685
Delta to Least Cost	$ **109,405,671**	Least Cost
Unit Cost (2009 PVRR $/CY)	$ 21.74	$ 17.40

From: Tapp Sr., Kenny (Electric)(/O=LGE/OU=LOUISVILLE/CN=RECIPIENTS/CN=WEB/CN=TAPPK)
To: Farhat, Monica
CC:
BCC:
Subject: FW: Ghent Gyspum Disposal
Sent: 01/05/2012 02:08:58 PM -0500 (EST)
Attachments: LGE - KU Sterling Materials.pdf;

This is the latest proposal to the best of my knowledge.

From: John Walters [mailto:johnwalters@sterlingventures.com]
Sent: Tuesday, September 13, 2011 5:15 PM
To: Smith, Timothy; Joyce, Jeff; Pfeiffer, Caryl; Tapp Sr., Kenny (Electric); Gilbert, Bill G.; Dotson, Mike; Puckett, Paul
Cc: Alex Boone
Subject: Ghent Gyspum Disposal

Please see attached

John W. Walters, Jr.
Sterling Ventures, LLC
376 South Broadway
Lexington, KY 40508
Phone (859) 259-9600
Cell 859-621-3990
Fax (859) 259-9601
johnwalters@sterlingventures.com

STERLING
VENTURES

September 13, 2011

Mr. Jeff Joyce
Mr. Timothy Smith
LG&E and KU-Ghent Station
9485 HWY 42 East
Ghent, KY 41045

Ms. Caryl Pfeiffer VIA E-mail
Mr. Kenny Tapp
Mr. Mike Dotson
Mr. Bill Gilbert
Mr. Paul Puckett
LG&E and KU
220 West Main Street
P.O. Box 32010
Louisville, KY 40202

Re: FGD Gypsum Disposal - Ghent Generating Station

Dear Ms. Pfeiffer and Gentlemen:

We have recently met with Tim Smith at Ghent Station to renew discussions concerning the possibility of Sterling Materials disposing of excess FGD Gypsum from the gypsum stacking facility at the Ghent Generating Station. We were unable to reach an agreement last year on gypsum disposal, presumably based on our proposed pricing.

Our pricing was in part based upon a requirement for a minimum tonnage of gypsum in order to cover the cost of Sterling having to install a gypsum access shaft to access our underground mine. The gypsum access shaft is preferable to trucking the gypsum underground, which we considered cost prohibitive. We proposed to Tim that if Ghent was interested in paying for the cost of the gypsum access shaft (which we estimated to be approximately $650,000) we would be willing to enter into an agreement that would give Ghent the right to dispose of its stacking pond gypsum in Sterling's mine. LGE/KU would be responsible for all loading and trucking fees. Sterling's charge in this scenario would be $5.50 per ton, subject to the terms of a final agreement. The $5.50 would be reduced by $1.00 for a period of 18 months in order to encourage early gypsum disposal, and allow you to recoup the cost of the gypsum access shaft.

As we discussed last year, Sterling is interested in not only handling the initial 1,500,000 tons of gypsum from the stacking facility, but also in receiving 100% of Ghent's excess FGD

gypsum for the life of the power plant. Attached is a comparative analysis of the PVRR cost difference between your current plan of placing all CCP's in a new landfill, and placing all gypsum at Sterling, with only ash going into your new landfill. The attached comparative analysis is based upon the capital construction cost and O&M cost you provided to the Kentucky Public Service Commission. Our attached analysis indicates that disposal of gypsum at Sterling could be the least cost PVRR alternative by at least $79,000,000, and possibly over $100,000,000 if scrubber limestone is purchased from Sterling and backhauled to the plant.

Obviously, we have necessarily made some assumptions in the attached comparative analysis, and we would like to meet with you again to discuss our analysis and assumptions, and to answer any questions you may have. We believe there are significant savings to you and your customers as reflected in the attached.

In addition, as we have previously discussed, we also have an underground limestone mine in Jessamine County near E.W. Brown. We met last week with Ron Gruzesky at The Kentucky Division of Solid Waste, and, based on that meeting, are planning to submit an application to permit our Jessamine County mine as a special waste landfill to receive all CCPs. Hopefully, there is the possibility of significant savings to you at Brown as well.

When you have a chance, give me or John Walters a call and we can discuss the above, and plan and how to move forward.

Sincerely,

Samuel A.B. Boone

GHENT STATION ALTERNATIVE FOR CCP/GYPSUM DISPOSAL

Background

Sterling Materials is an active underground limestone mine located in Verona, Kentucky, approximately 20 miles from Kentucky Utilities Company's Ghent Station. Sterling currently mines between 1,000,000 and 1,600,000 tons of limestone per year, and has been in operation since 2000.

In addition to producing limestone for the general aggregate construction market, Sterling also mines high calcium limestone for Mississippi Lime Company for use in Mississippi Lime's kiln located on Sterling's property. This high calcium limestone is also suitable for use as scrubber stone in Ghent's limestone FGD scrubber system.

In November 2010, Sterling obtained a Special Waste Permit from the Kentucky Department of Environmental Protection, Division of Waste Management allowing disposal of FGD gypsum in Sterling's mine.

KU has proposed building a new landfill at Ghent in three phases for an estimated total cost of $360,000,000 to handle the plant's three coal combustion by-products ("CCPs") through 2037[1]. KU forecasted the following wet storage CCP production volumes for Ghent Station (Cubic Yards):

Year	Fly Ash	Bottom Ash	Gypsum
2009	540,000	140,000	880,000
2010	550,000	150,000	1,090,000
2011	580,000	150,000	1,120,000
2012	550,000	150,000	1,060,000
2013	550,000	150,000	1,090,000

Source: Coal Combustion Byproduct Plan for Ghent Station dated June 2009 (the "Ghent CCP Plan" attached as Exhibit A)

Ghent's FGD gypsum is currently placed in a wet gypsum stacking pond. Ghent also has a contract to supply CertainTeed, Inc. with gypsum, and KU has estimated that CertainTeed will purchase approximately 222,000 cubic yards per year of gypsum from Ghent. As a result, Ghent will be required to continue diverting a portion of its gypsum production to the gypsum stacking pond.

The Ghent CCP Plan outlines KU's comparative analysis of the various alternatives to reach the least cost PVRR of disposing of Ghent's CCPs. One of the alternatives considered was off-site disposal at Valley View Landfill near Sulfer, Kentucky, approximately 25 miles from Ghent Station.[2] Disposal at Valley View was however dismissed because of the high cost of loading, hauling and landfill tipping fees.[3] Although, KU has redacted from public view the cost associated with the Valley View disposal alternative, based on

[1] Phase I cost thru 2018 of $203,969,979 as set forth in Revenue Requirement Summary for Project 30 – Ghent Landfill Phase I attached as Exhibit B. Total project capital cost estimated to be $360,000,000 per direct testimony of John Voyles before the Kentucky Public Service Commission in Case No. 2009-00197 attached as Exhibit C.
[2] Ghent CCP Plan, footnote 14, page 10.
[3] Supra at page 19.

other information contained in information provided to the KY PSC, it is estimated that the projected cost for disposal at Valley View in 2009 was approximately $29.65 per ton.[4]

Alternative Proposal for Gypsum Disposal at Sterling Materials' Mine

Sterling Materials is proposing that Ghent send all of its gypsum production (net of sales CertainTeed) to Sterling mine for disposal, with Ghent's ash being disposed of in either the new landfill as proposed on Site E/F, or in a new landfill located at Site M as considered by Case 14/28 in the Ghent CCP Plan (See page 18-19). Sterling estimates that the PVRR cost of this alternative is at least $79,000,000 less than KU's proposal for a new landfill at Site E/F, as set forth in Exhibit D.

Assumptions in Exhibit D analysis

1. Total price for loading, hauling and fees to Sterling Materials of $10.95 in 2013.
2. Net CCP production of approximately 868,000 cubic yards (1,090,000 – 222,000 to CertainTeed).
3. Cubic yards to ton conversion factor – cy x 1.155 (based on Trans Ash conversion assumption of 1.3 MCY equals 1.5 million tons as hauled - see page 10 of Ghent CCP Plan).
4. Reduce Phase I construction cost by $53,110,000[5] by continuing to place gypsum temporarily in existing gypsum stacking pond until shipment to Sterling.
   - Dry Gypsum Handling System $36,800,000
   - Gypsum Fines Project $12,600,000
   - Gypsum Dewatering Facility Earthwork $ 3,710,000
5. Phase III landfill construction cost eliminated. Phase II construction delayed from 2018 to 2030.
   - Phase I capacity – 14.7 MCY (See Ghent CCP Plan page 12)
   - Ash Production – 700,000 MCY (See Ghent CCP Plan page 7)
   - Phase I life until full – 21 years
6. Total Phase II and III construction costs - $156,030,021 (see Footnote 1)
   - Phase II construction cost - $80,000,000
   - Phase III construction cost - $76,030,021
7. Eliminate following Ghent Landfill Operating Expenses (See Ghent Landfill Operating Expenses - Phase I attached as Exhibit F)
   - Dry Gypsum Handling System
   - Hauling Gypsum to Landfill
     - Loading
     - Phase I-2.25 mile round trip
     - Landfilling Gypsum
8. Continue 2018 Annual Depreciation Rate of 2.7899% on Eligible Capital through 2037
9. Continue 2018 Property Tax Expense Rate of .1259% on Eligible Capital through 2037
10. Apply KU O&M Escalation Rate of 6% (See Ghent CCP Plan page 22)

[4] Total beneficial reuse cost of approximately $8,900,000 for 1,500,000 tons of Gypsum to Trans Ash, Inc. equals $5.93/ton (See Comprehensive Strategy for Management of Coal Combustion Byproducts – June 2009), which is almost 80% less than per unit volume basis than disposal at Valley View. (Ghent CCP Plan at pages 18 and 20).
[5] See Ghent Landfill Capital Expenditures Phase I attached as Exhibit E.

Purchase of Scrubber Stone from Sterling

Sterling Materials mines a high calcium seam of limestone in its 2nd and 3rd levels that will meet, and possibly exceed, Ghent's calcium specifications for scrubber stone. Based on general industry knowledge, without verification, it is believed that Ghent's current cost of scrubber stone FOB plant is approximately $8.00.

The proposed price of 10.50 for gypsum disposal at Sterling includes $4.50 per ton for transportation, based upon an assumed round trip turn of 1.5 hours, and $75.00 per hour to haul 25 tons.

Sterling is proposing to sell high calcium limestone to Ghent for $6.50 per ton and backhauling the stone to Ghent. If a $1.50 per ton trucking fee is assigned to the transportation of the limestone, Ghent will incur no additional cost for it scrubber stone. However, reducing the transportation component of the gypsum disposal cost by $1.50 reduces the proposed disposal cost from $10.50 to $9.00 per ton, and correspondingly increases the PVRR saving advantage from approximately $79,000,000 to over $100,000,000. (See Exhibit G).

Construct Ash Storage Pond at Site M

Although KU has redacted from public view information provided to the Kentucky PSC on the cost associated with an ash landfill on Site M, it would generally appear that using Site M as an ash landfill verses Site E/F would substantially reduce ash disposal cost and further increase the PVRR saving from disposing all of Ghent's gypsum at Sterling.

Site M is substantially closer to Ghent than Site E/F (Ghent CCP Plan page 12 and Exhibit H). The estimated cost of hauling fly and bottom ash to Site E/F is $2,822,723 in 2013, and the corresponding haul Road maintenance cost is $53,529. Even reducing those costs by a modest 50% for the haul to Site M verses site E/F would produce another $21,800,000 in PVRR savings compared to CCP disposal at Ghent under Project 30.

EXHIBIT A

Coal Combustion Byproduct Plan for Ghent Station For

Subsidiaries
Kentucky Utilities and
Louisville Gas and Electric

June 2009

CONFIDENTIAL INFORMATION REDACTED

1. Executive Summary

Kentucky Utilities Company's ("KU") Ghent station ("Ghent") produces three primary coal combustion byproducts ("CCP"): bottom ash, fly ash and gypsum, which are currently stored in two ash treatment basins and two gypsum stacking areas. These storage areas are expected to reach full capacity in 2012, creating a need for additional CCP management solutions.

A variety of on-site and off-site options were considered to meet CCP management needs at Ghent. The most effective solutions were identified through a needs analysis and economic analysis based on engineering cost estimates.

To address the pre-2013 need for gypsum storage capacity, an opportunity to remove a quantity of gypsum to be beneficially reused as structural fill was identified. This reuse option is significantly lower cost than transporting CCP to an off-site landfill, which is the other short-term option.

For longer-term CCP storage needs, KU contracted an engineering consultant to develop potential on-site storage alternatives. Of multiple options considered, four options were selected for further economic evaluation. Based on cost estimates and qualitative factors for these alternatives, the most favorable option is a single on-site landfill to store both ash and gypsum.

The most cost effective and environmentally sound CCP management options for Ghent are:

- a proposal for beneficial reuse of 1.3 million cubic yards ("MCY") of CCP (approximately 75% of annual CCP production) by Trans Ash, Inc. in 2010-2012 (Present value of revenue requirement ("PVRR") of [redacted] million or [redacted] per cubic yard), and
- the construction of a new on-site landfill system to store both ash and gypsum production for 25 years to be in-service by 2013 (PVRR of [redacted] million or [redacted] per cubic yard).

In addition, KU will continue to pursue other beneficial reuse opportunities that result in lower disposal costs.

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2. Background

Kentucky Utilities Company's ("KU's") Ghent generating station ("Ghent") is located in Carroll and Gallatin Counties, Kentucky and is comprised of four coal-fired generating units for a total net station capacity of over 1,900 MW. The station produces three primary coal combustion byproducts ("CCP"): bottom ash, fly ash and gypsum. The Ghent station has four existing on-site storage facilities for CCP as follows:

- Ash Treatment Basin ("ATB") #1
- ATB #2
- North Gypsum Stack
- South Gypsum Stack

The ATBs are used to store bottom ash and fly ash which are byproducts of burning coal. ATB #1 is at maximum capacity[1] and ATB #2 is nearing maximum desired capacity. As of February 2009[2], ATB #2 can hold approximately an additional 2.5 MCY of ash. Ghent is forecast to produce approximately 0.7 MCY of ash annually, thus depleting the capacity in ATB #2 in 2012.[3]

Gypsum is produced by Ghent's flue gas desulfurization ("FGD") systems, which use limestone reagent to remove sulfur dioxide from flue gas. Until an additional repository can be developed, Ghent's gypsum is stacked on site. Based on the plant's expected generation, the existing capacity of the north and south gypsum stacks (collectively the "gypsum stack") is expected to be exhausted in 2012.[4]

Some gypsum is currently sold to a third party for beneficial reuse.[5] CertainTeed, Inc. ("CertainTeed") currently pays KU [redacted] per cubic yard for gypsum to be used as a raw material in the production of wallboard. This contract began in 1999 and runs through 2024. CertainTeed does not have minimum or maximum volume obligations, but their expected annual volume is approximately 222,000 cubic yards of gypsum (approximately 20% of annual gypsum production) based on recent utilization data.[6]

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[1] ATB #1 is not relevant to this analysis as it is not currently receiving any CCP, although it is available for emergency use.

[2] A bathymetric survey of ATB #2 was conducted by HDR/Quest/Rudy for GAI Consultants in February 2009.

[3] The available capacity of ATB #2 at the end of June 2009 is forecasted to be approximately 2.3 MCY.

[4] The available capacity of the gypsum stack at the end of June 2009 is forecasted to be approximately 2.6 MCY.

[5] KU identifies economically and environmentally favorable options to beneficially reuse CCP, consistent with KU's Comprehensive Strategy for Management of CCP shown in Exhibit JNV-3.

[6] Gypsum sales to CertainTeed were 263,000 tons in 2007, 375,000 tons in 2008, and 103,000 tons year-to-date through May 2009. However, their purchases decreased late in 2008 and year-to-date in 2009 as the economy slowed.

3. Process and Methodology

KU and Louisville Gas and Electric Company (collectively "the Companies") develop the most effective plan for meeting the CCP storage needs at each generating station. The process of identifying the plan consists of the three following primary tasks which are performed by several departments within the Companies.

- Needs assessment
- Development of alternatives
- Comparison of alternatives

The CCP storage needs are defined by forecasting the production of CCP over the applicable planning period as compared to the existing storage capacity. The Project Engineering department and the applicable generating station are responsible for providing an estimate of remaining capacity.

The expected life of the existing storage capacity is based on the forecast of CCP production, which is developed by Generation Planning for all stations as a function of the expected coal usage for each unit. The Companies compile information regarding the cost of generation for each unit (fuel, variable O&M, emission costs, etc.), a description of the generation capabilities of each unit (capacity, heat rate curve, commitment parameters, emission rates, availability schedules, etc.), a load forecast, the market price of electricity, and the volumetric ability (transfer capability) to access the market. All of this information is brought together in the PROSYM™[7] software, which is used to model the economic operation of the Companies' generating system. The projected coal usage data provided by this model is checked for reasonableness by comparing the results to historical data.

The Project Engineering department develops alternatives for on-site CCP storage solutions and their associated costs. Any alternatives for off-site disposal such as beneficial reuse or off-site landfill disposal are provided by the generating stations' staff and a CCP team focused on exploring alternatives for byproduct storage. The cash flows for selected options are summarized and provided to Generation Planning for evaluation.

The Generation Planning department evaluates the storage and disposal options received from Project Engineering to determine the present value of revenue requirements ("PVRR") associated with the capital expenditures and O&M expenses of each option. This analysis is performed using the Capital Expenditure Recovery module of the Strategist®[8] software model.

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[7] The PROSYM™ model has formed the foundation of prior analyses involving certificates of convenience and necessity for new generating plants, environmental cost recovery for pollution control equipment, and the fuel adjustment clause.

[8] Strategist® is a proprietary, state-of-the-art resource planning computer model. The Capital Expenditure Recovery module is used to quantify the revenue requirements impact associated with capital projects.

4. Needs Assessment

The following capacities were provided by Project Engineering and the Ghent station:

- ATB #1 is at capacity and is available for emergency use only.
- As of February 2009, the remaining available capacity of ATB #2 is 2.5 million cubic yards.[9]
- The remaining available capacity of the gypsum stacks is estimated to be 2.9 MCY as of January 2009.[10]

The expected life of the remaining capacity of the ATB #2 and the Gypsum Stack were estimated by forecasting the CCP production of ash and gypsum at Ghent. The quantity of ash produced at Ghent is estimated at a coal specification of 11.5% ash by weight of the total quantity of coal used, or approximately 11.5 tons of ash per 100 tons of coal. Converting to volumetric measurement, assuming ash production consists of 80% fly ash and 20% bottom ash by weight, approximately 11.5 cubic yards of total ash is produced per 100 tons of coal.[11]

The chemical reaction by which gypsum is produced results in a net gypsum production of approximately 18% by weight of the total quantity of coal used,[12] or approximately 18 tons of gypsum per 100 tons of coal. Converting to volumetric measurement for the gypsum stack, approximately 17.8 cubic yards of gypsum is produced per 100 tons of coal.

The forecasted CCP production volume for Ghent is shown in Table 1 and depicted graphically in Figure 1 and Figure 2, based on the forecasted coal burn shown in Table 2. Table 2 also contains the historical quantities of coal burned as a comparison to the forecast. The increase in coal burn during the 2010-2013 period is due to the completion of the FGD installations at Ghent in 2009, which required prior scheduled outages on each of the Ghent units during 2007-2009. Also, with the addition of the FGDs, Ghent has lower fuel costs, resulting in higher forecasted generation.

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[9] Based on expected coal burn, Generation Planning forecasts that by the end of 2009, the remaining capacity of ATB #2 will be 1.9 MCY.

[10] Based on expected coal burn and existing beneficial reuse, Generation Planning forecasts that by the end of 2009, the remaining capacity of the gypsum stacks will be 2.2 MCY.

[11] Density assumptions for wet storage are 0.945 tons per cubic yard for bottom ash and 1.0125 tons per cubic yard for both fly ash and gypsum.

[12] Fuel specification assumptions include SO_2 content of approximately 5.9 lb/mmBTU and heat content of 22.16 mmBTU/ton.

Table 1: CCP Production Forecast (MCY)

CCP Production Forecast *(MCY – wet storage)*			
	Fly Ash	**Bottom Ash**	**Gypsum**
2009	0.54	0.14	0.88
2010	0.55	0.15	1.09
2011	0.58	0.15	1.12
2012	0.55	0.15	1.06
2013	0.55	0.15	1.09

Table 2: Ghent Coal Usage (Million Tons)

Ghent Coal Usage *(M Tons)*	
Historical	
2004	5.4
2005	5.6
2006	5.6
2007	5.3
2008	5.7
Forecast	
2009	5.6
2010	6.0
2011	6.3
2012	6.1
2013	6.1

The forecasted generation and the resulting coal usage at Ghent correspond to an average capacity factor of approximately 77%. This relatively high capacity factor is consistent with Ghent's low production cost. Since Ghent is already modeled as a baseload station, the risk of significantly underestimating CCP production is low. However, reduction in load or unexpected outages at Ghent could affect the capacity factor and lower future CCP production.

Figures 1 and 2 show the forecasted cumulative CCP production at the end of each year compared to the expected available capacity at the end of 2009. With current forecasts for ash production and without any additional on-site capacity or off-site storage or reuse, ATB #2 is expected to reach full capacity during 2012, as shown in Figure 1. Assuming no beneficial reuse beyond the expected 222,000 cubic yards per year by CertainTeed, the gypsum stack is also expected to reach maximum capacity in 2012, as shown in Figure 2.

Figure 1: ATB #2 Capacity

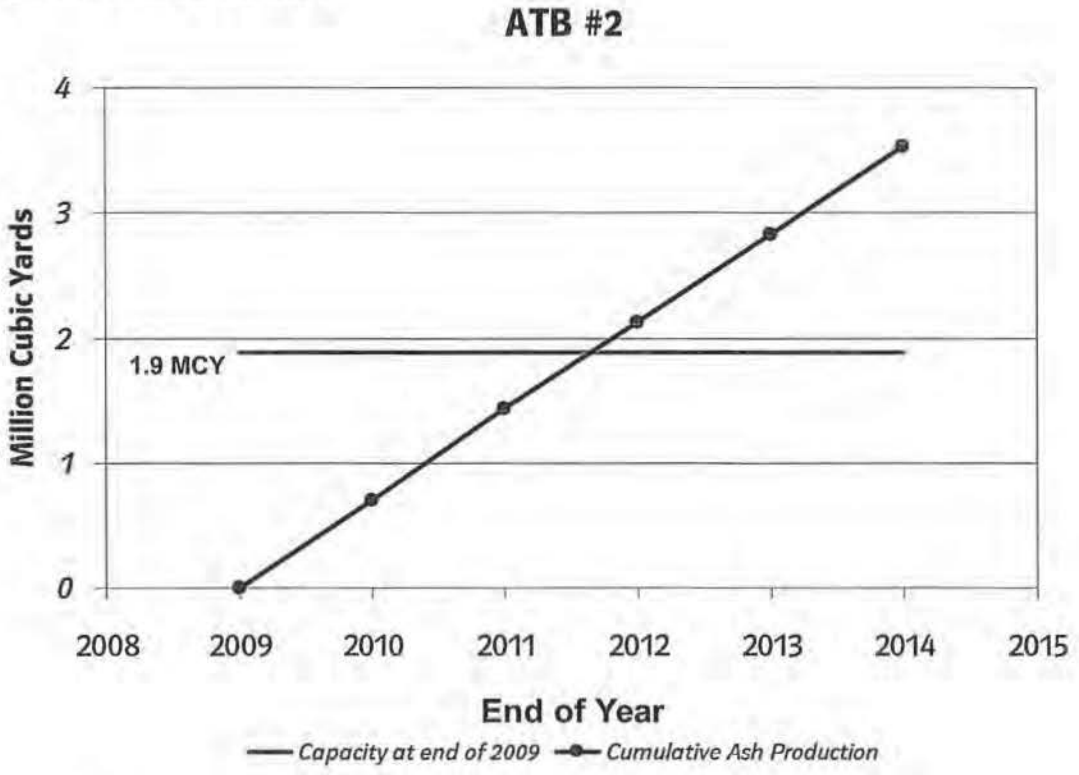
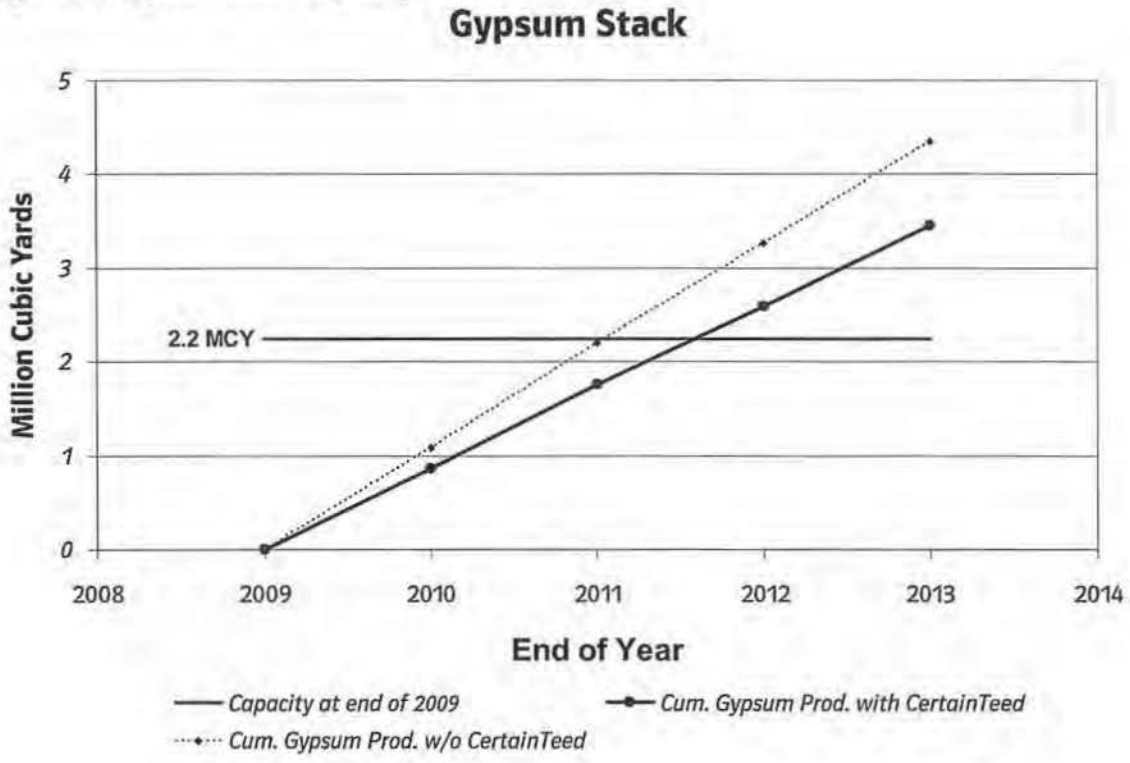


Figure 2: Gypsum Stack Capacity



In summary, the needs assessment indicates that additional CCP disposal alternatives will be needed for both ash and gypsum at Ghent by 2012. At least 0.6 MCY of CCP must be moved off-site in order to maintain operations of the existing storage facilities at Ghent through 2012.

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5. Development of Alternatives

In the case of CCP solutions for Ghent, Project Engineering and the CCP team developed two sets of options for evaluation:

1. Short-term storage options to meet 2009-2012 requirements
2. Long-term storage options to meet 2013-2037 requirements.

The short-term options were developed because long-term options cannot be in service before 2013, and on-site capacity is expected to be depleted in 2012. These options were evaluated independently, leading to a recommendation for short-term and long-term solutions.

5.1 Short-Term Disposal

As a result of ATB #2 and the gypsum stack nearing their maximum desired storage capacities, the station, in conjunction with the CCP Team, negotiated with Trans Ash, Inc. ("Trans Ash"), a company specializing in the reuse of CCP, to beneficially reuse 1.3 MCY (approximately 1.5 million tons as hauled) of CCP as structural fill. The 2009 base cost of this proposal is [redacted] per MCY[13], subject to annual adjustments to the base price and fuel cost adjustments. The base price is redetermined by increasing the previous year's price by 90 percent of the year-over-year percent change in the Consumer Price Index – All Urban Customers, U.S. City Average. The fuel adjustments are made for both off-road and on-road diesel use. Off-road fuel adjustments are calculated as the difference between the base diesel unit price of [redacted] per gallon and the average unit diesel price paid multiplied by the quantity of off-road diesel purchased each year. The on-road diesel adjustment is calculated as the product of the average quantity of fuel used and the difference between the base diesel price and the index price as published by the U.S. Department of Energy, Energy Information Administration in "The U.S. No 2 Diesel Low Sulfur (15-500 ppm) Retail Sales by All Sellers (Cents per Gallon)"

An agreement with Trans Ash would require that the full 1.3 MCY be moved in 2010-2012 to satisfy the end consumer of the beneficial reuse opportunity. Consistent with KU's CCP management strategy, this fill location has been evaluated and confirmed as appropriate for beneficial reuse. The location is not in an environmentally sensitive area.

The only near-term alternative to beneficial reuse of CCP is the use of an existing off-site commercial landfill. For 2009, the total unit cost of storage in the closest off-site landfill was estimated to be [redacted] per cubic yard[14]. In contrast to the Trans Ash proposal, an off-site landfill storage option requires that only a minimum of 0.6 MCY must be moved off-site prior to 2013 to ensure continuing operations at Ghent.

---

13 [redacted] per MCY as stored is equivalent to [redacted] per ton as hauled.

14 [redacted] per cubic yard is equivalent to [redacted] per ton as hauled for transport and storage at Valley View landfill near Sulphur, KY, approximately 25 miles from Ghent. Cost components per ton are [redacted] for excavating and loading, [redacted] for hauling, and [redacted] for landfill tipping fee. This quoted tipping fee is slightly below the listed rates of [redacted]/ton for other regional public landfills.

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5.2 Long-Term Storage

To meet the long-term storage needs at Ghent, KU contracted GAI Consultants, Inc., Pittsburgh, PA ("GAI") to provide both an Initial Siting Study ("ISS") and a Final Conceptual Design Study of CCP storage alternatives at Ghent.[15] The ISS identified over forty potential alternatives based on combinations of a number of variables, including storage and transport methods, site locations, and relocation of transmission lines. As a result of this study, four on-site alternatives shown in Table 3 were selected for further consideration. In the process of developing the Final Conceptual Design Study, GAI refined the cost estimates for these alternatives in addition to other detailed engineering tasks. As an alternative to building on-site storage facilities, use of an existing off-site commercial landfill for storing future CCP was also considered as a long-term option.

Table 3: Alternatives for Long-Term Storage

		On-Site				
Case		**14/28**	**37**	**41**	**42/28**	**Off-Site Landfill**
Description		2 Landfills	1 Landfill	1 Pond	1 Pond 1 Landfill	
Total Capacity *(MCY)*		46.1	46.1	53.6	48.3	46.1 needed
Nominal Cost *($M)*	**Capital**					
	O&M[16]					

Each of the cases for on-site long-term storage was designed to hold twenty-five years of CCP production with phased construction. The total capacity required for each case differs due to the different density of CCP stored in ponds versus landfills. Table 4 shows the construction periods, the in-service years, and the capacity for each phase of the on-site cases. The site locations as shown in Figure 3 are noted as follows:

- Site M is north of ATB #2 on property owned by KU.
- Site E/F which is southeast of ATB #2 and include properties owned by KU and approximately 350 acres owned by others.
- Pond L represents vertical and lateral expansion east of ATB #2 with an impoundment.

[15] A preliminary draft of the Final Conceptual Design Study is shown in Exhibit JNV-4.
[16] The O&M figures in Table 3 include the cost for power to operate the on-site storage alternatives.

Figure 3: CCP Storage Site Alternatives

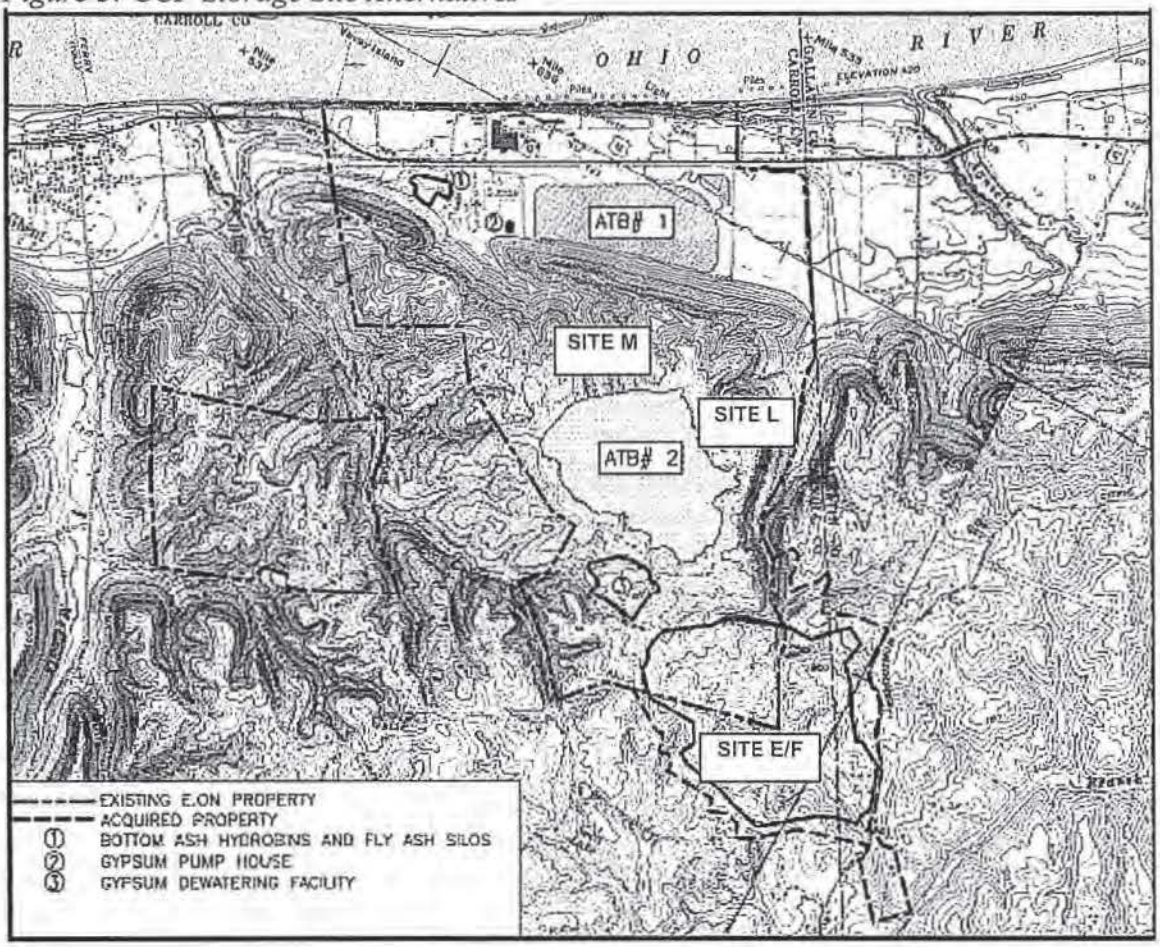


Table 4: Construction Phases for On-Site Storage Options

Case		**14/28**		**37**	**41**	**42/28**	
Site Location		M	E/F	E/F	L	L	E/F
Phase 1	**Construction**	2010-14		2010-14	2010-13	2010-14	
	In-Service	2013		2013	2013	2013	
	Capacity *(MCY)*	5.3	5.7	14.7	16.5	7.2	8.4
Phase 2	**Construction**	2016-18		2018-19	2017-19	2018-20	
	In-Service	2019		2020	2020	2021	
	Capacity *(MCY)*	8.5	8.0	12.3	15.7	8.3	7.7
Phase 3	**Construction**	--	2023-25	2024-26	2025-27	2027-29	
	In-Service	--	2026	2027	2028	2030	
	Capacity *(MCY)*	--	12.4	19.1	21.6	6.1	8.0
Phase 4	**Construction**	2027-29	--	--	--	--	
	In-Service	2030	--	--	--	--	
	Capacity *(MCY)*	6.2	--	--	--	--	--

Case 14/28. Case 14/28 consists of separate landfills for ash and gypsum with ash stored at Site M and gypsum stored at Site E/F. Construction of the landfills consists of four phases as shown in Table 4 with the first phase beginning in 2010 and the final phase ending in 2029. Figure 4 shows the phased cumulative design capacity of the landfill at Site M compared to the forecasted ash production. Figure 5 shows the phased cumulative design capacity of the landfill at Site E/F compared to the forecasted gypsum production both including and excluding the effect of the expected gypsum reuse by CertainTeed. These figures, as well as Figures 6-9, demonstrate that the designs for the timing and volume of capacity additions for each of the cases considered are reasonable compared the forecasted CCP production.

Figure 4: Long-Term Needs Assessment – Case 14/28, Landfill M

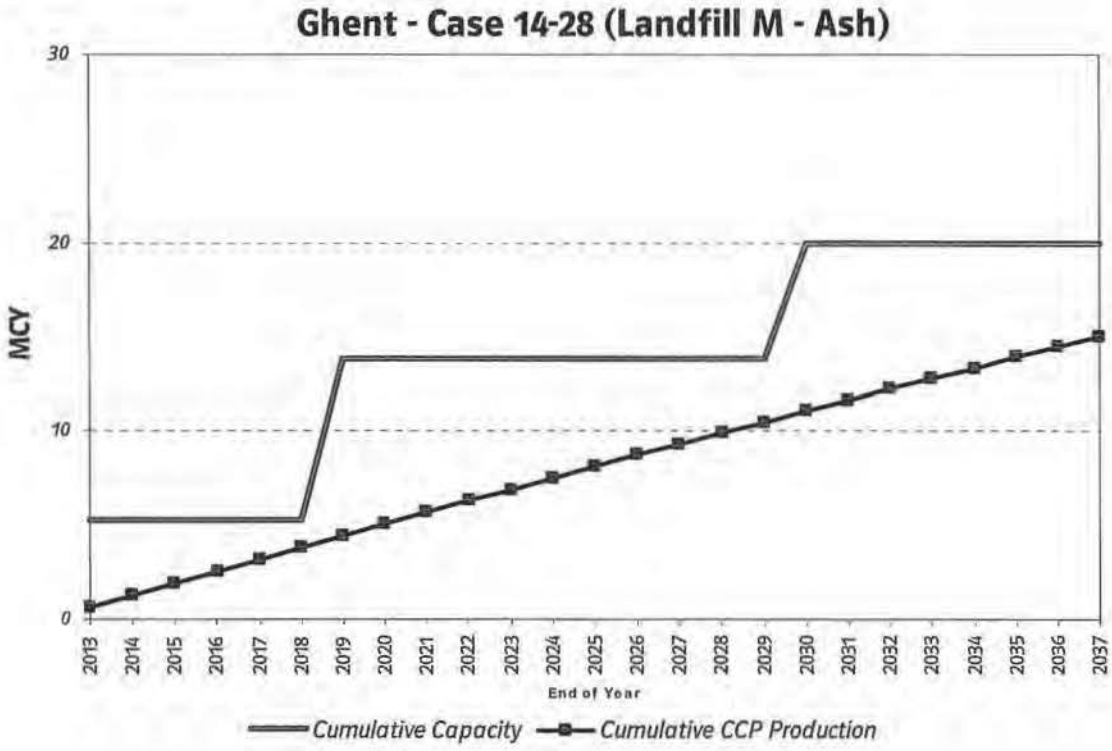
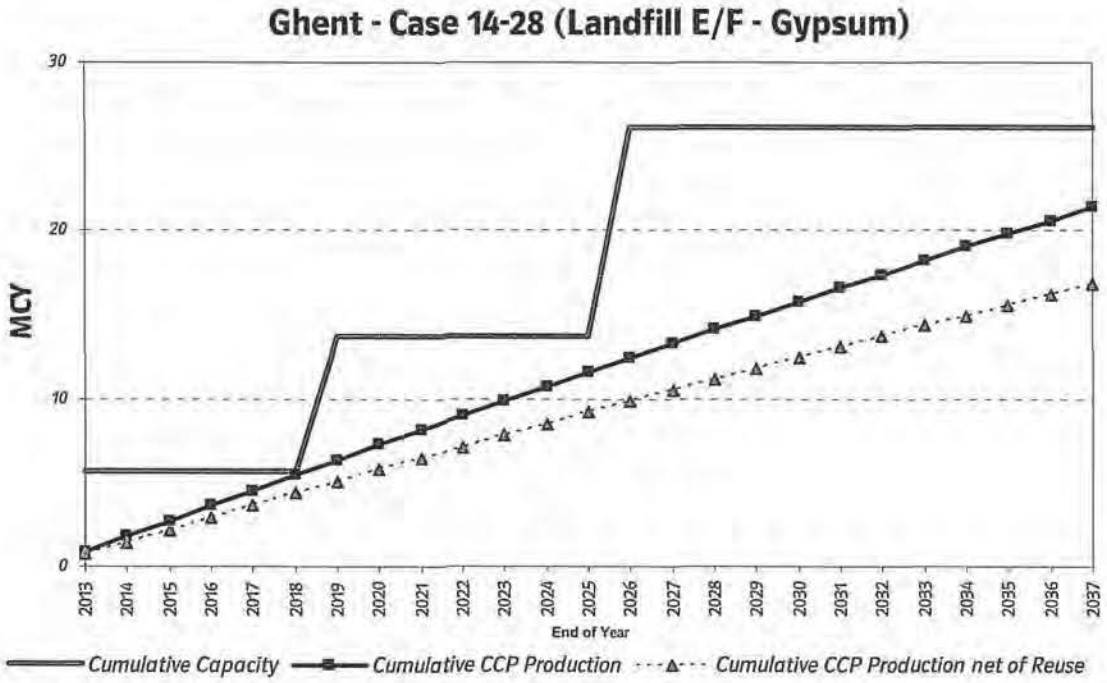
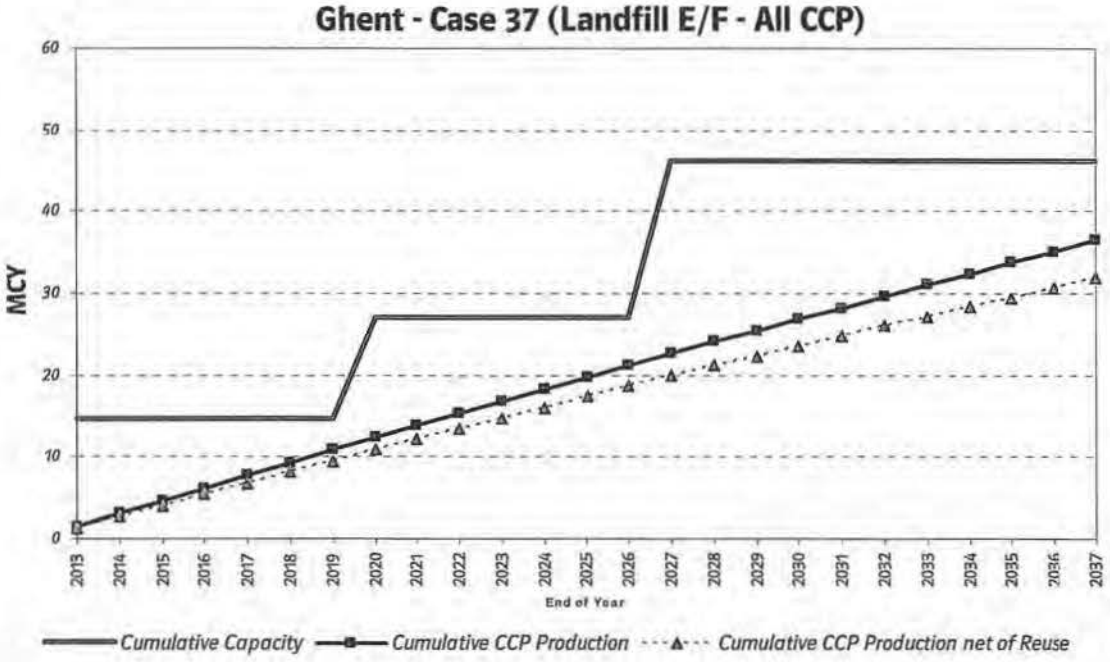


Figure 5: Long-Term Needs Assessment – Case 14/28, Landfill E/F



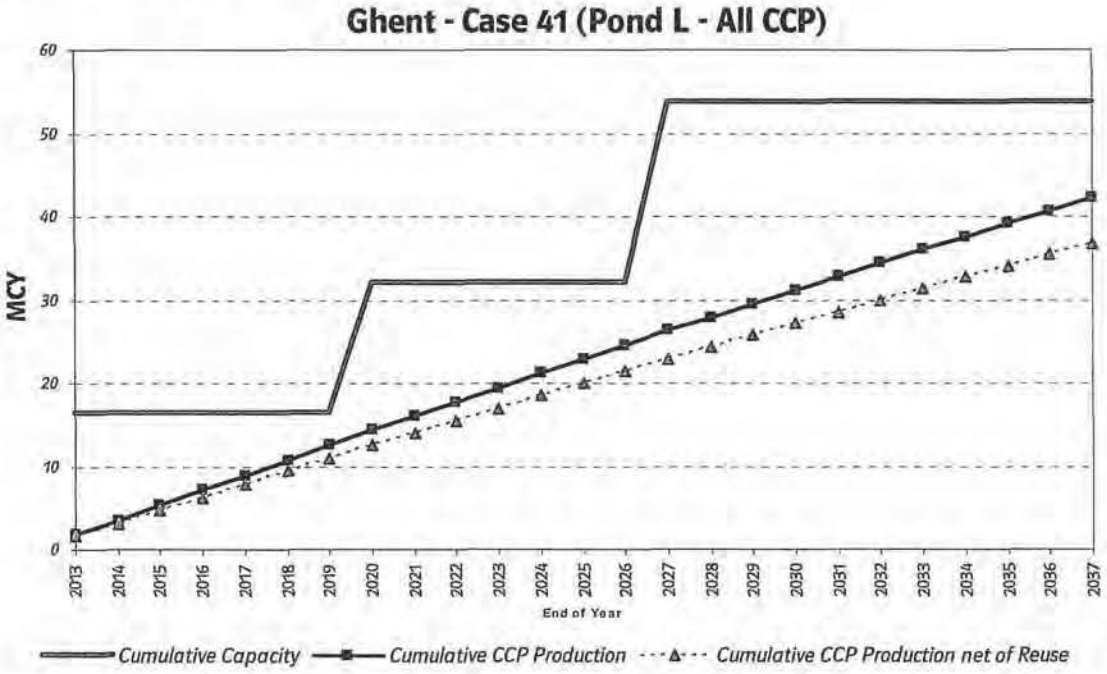
Case 37. Case 37 consists of a single landfill for both ash and gypsum at Site E/F. The construction schedule consists of three phases beginning in 2010 and ending in 2026. Figure 6 shows the phased cumulative design capacity of this landfill compared to the forecasted cumulative CCP production both including and excluding the effect of the expected gypsum reuse by CertainTeed.

Figure 6: Long-Term Needs Assessment – Case 37, Landfill E/F



Case 41. Case 41 consists of a single pond for both ash and gypsum at Site L. The construction schedule consists of three phases beginning in 2010 and ending in 2027. Figure 7 shows the phased cumulative design capacity of this landfill compared to the forecasted cumulative CCP production both including and excluding the effect of the expected gypsum reuse by CertainTeed.

Figure 7: Long-Term Needs Assessment – Case 41, Pond L



Case 42/28. Case 42/28 consists of a pond at "Site L" for ash and a landfill at "Site E/F" for gypsum. Construction of these facilities consists of four phases as shown beginning in 2010 and the final phase ending in 2029. Figure 8 shows the phased cumulative design capacity of the pond at Site L compared to the forecasted ash production. Figure 9 shows the phased cumulative design capacity of the landfill at Site E/F compared to the forecasted gypsum production both including and excluding the effect of the expected gypsum reuse by CertainTeed.

Figure 8: Long-Term Needs Assessment – Case 42/28, Pond L

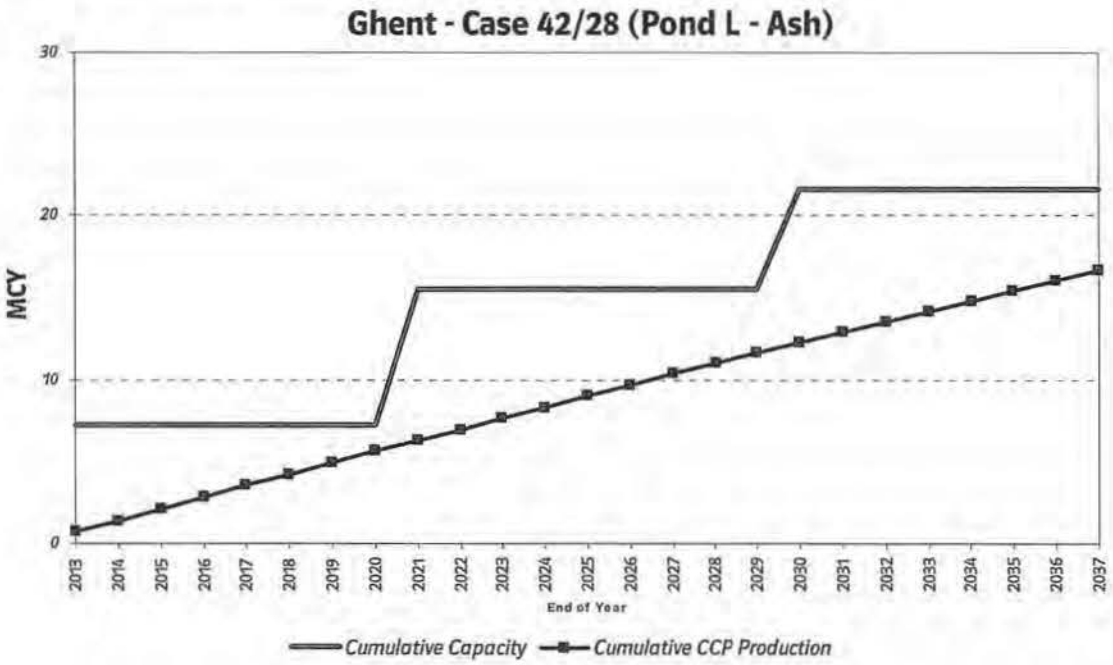
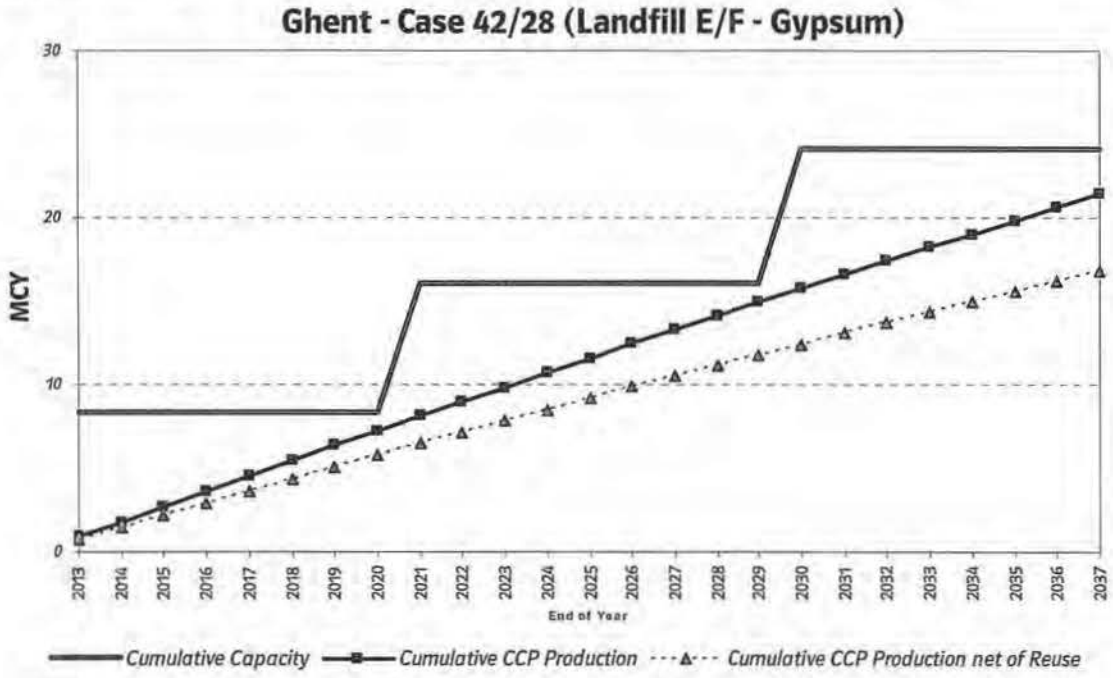


Figure 9: Long-Term Needs Assessment – Case 42/28, Landfill E/F



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6. Comparison of Alternatives

6.1 Short-Term Disposal

The short term disposal analysis compares the cost of a beneficial reuse initiative with Trans Ash to the cost of off-site landfill disposal. The Trans Ash proposal is to move 1.3 MCY in 2010 through 2012 and the plan for off-site landfill disposal is to move 0.6 MCY in 2012. Both of these options consist only of O&M costs, with no additional capital expenditure. As seen in Table 5, the Trans Ash proposal is the least-cost option to meet the short term capacity needs at Ghent. On a cost per volume basis, the Trans Ash option is almost 80% less costly than the off-site landfill option. Also, despite the higher volume requirement, the Trans Ash proposal's PVRR is $9.8 million lower than the off-site landfill alternative.

Table 5: PVRR Analysis Summary of Short-Term Alternatives

	Trans Ash Beneficial Reuse	**Off-site Landfill Disposal**
Total Quantity *(MCY)*	1.3	0.6
PVRR *(2009 million $)*		
Delta to Least Cost Case	*Least Cost*	*9.8*
Unit Cost *(2009 PVRR $/cubic yard)*		

6.2 Long-Term Storage

The long-term storage evaluation (Table 6) compares the PVRR and per-unit cost of four on-site storage alternatives selected in the engineering studies, in addition to disposal in an off-site commercial landfill. The financial assumptions related to the analysis of these cases are shown in Appendix 1, the projected cash flows are shown in Appendix 2, and the annual revenue requirements are detailed in Appendix 3.

The following is a brief comparison of the results:

Case 37. Case 37 consists of a common on-site landfill for both ash and gypsum. This is least cost on a PVRR basis by $26 million. This option is also lowest cost on a per unit volume basis at PVRR per cubic yard. The favorable capital profile of this project results from the single landfill approach compared to Case 14/28, which includes separate landfills for ash and gypsum.

Case 14/28. Case 14/28 consists of separate landfills for ash and gypsum and involves higher up-front capital costs ($34 million higher through 2017, $6 million of which is due to transmission expenditures), an accelerated timeline for the addition of subsequent phases, and an additional construction phase compared to Case 37. This is partially offset by slightly lower annual O&M costs due to reduced distances for transporting ash. In summary, the lower costs associated with the shorter transport distances are overcome by the additional costs of the two landfills.

Cases 41 and Case 42/28. Case 41 consists of a single pond for both ash and gypsum and Case 42/28 consists of an ash pond and a gypsum landfill. The construction of an ash

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pond is significantly more capital intensive compared to a landfill, although the ongoing operation is less costly. Through 2016, both of these cases are approximately $95 million higher in total capital costs than Case 37. Construction of the second and third phases increases the capital premium to $850 million for Case 41 and $350 for Case 42/28. Inclusion of the pond closure costs in 2038 raises these figures to $1,145 million and $475 million for Cases 41 and 42/28, respectively. Although the O&M is significantly lower for these cases compared to Case 37, it is not enough to offset the effect of the higher initial capital expenditures.

Off-site landfill. The off-site landfill option consists only of O&M costs, but this option is the highest-cost alternative due to the high unit cost of off-site landfill disposal, which is approximately [redacted] PVRR per cubic yard.

Beneficial Reuse. KU will evaluate beneficial reuse opportunities as they arise, and will pursue proposals that are favorable to on-site disposal.

Table 6: PVRR Analysis Summary of Long-Term Alternatives
(2009 PVRR million $)

Case	**14/28**	**37**	**41**	**42/28**	**Off-Site Landfill**
PVRR					
Capital	[redacted]				
O&M					
Total					
Delta to Least Cost Case	*26*	*Least Cost*	*254*	*125*	*413*
Capacity *(MCY)*	46.1	46.1	53.6	48.3	46.1
Unit Cost *(2009 PVRR $/CY)*	[redacted]				

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7. Recommendations

The needs assessment demonstrates a need for additional CCP storage capacity at the Ghent station by 2012. Analysis of the options provided by Project Engineering demonstrates that the most favorable alternatives to meet Ghent's CCP storage needs are:

- Short-term: the proposal for beneficial reuse of 1.3 MCY of gypsum by Trans Ash in 2010 through 2012. The PVRR is [redacted] million, or [redacted] per cubic yard.
- Long-term: constructing the first phase of an on-site landfill to store both ash and gypsum, to be in-service in 2013. The PVRR is [redacted] million, comprised of [redacted] million capital and [redacted] million O&M.

The short-term solution utilizing beneficial reuse is almost 80% less on a per unit of volume basis than disposal at an off-site commercial landfill. The unit cost of this short-term recommendation is also lower than the unit cost of the recommended long-term on-site landfill. The long-term solution includes the construction of a single landfill and is 4% less on a PVRR basis than the dual landfill option (Case 14/28).

Further details regarding the status of this project and the expected construction schedule are shown in Appendix 4.

Appendix 1

Analysis Assumptions

- Study Period: 30-year period for operational costs impacts (2009-2038)
  50-year period for capital costs impacts (2009 through tax life of final project phase).

  The revenue requirements associated with capital costs are determined via the Capital Expenditure and Recovery module of the Strategist production and capital costing software. To completely account for capital projects costs over their lifetime, the revenue requirements associated with new capital projects were included beyond the operational study period through the end of their tax life.

- Capital and O&M costs associated with the addition of new environmental projects will be subject to recovery through the Environmental Cost Recovery ("ECR") mechanism. O&M costs for electrical power usage required to operate equipment related to CCP storage are included when comparing alternatives (noted as "Power" in Appendix 2) but are not included as recoverable costs for calculation of ECR billing factors.

- Financial data
  - Discount rate: 7.81%
  - Income tax rate: 38.9%
  - Insurance rate: 0.07%
  - Property tax rate: 0.15 %
  - Percentage of debt in capital structure: 47.01%
  - Debt interest rate/weighted cost of debt: 4.64%
  - Return on equity: 10.63%
  - Book life - average landfill phase (non-transmission): 12 years
  - Book life – transmission (line relocation): 40 years
  - Tax life: 20 years
  - Annual capital and O&M escalation rate: 6%
  - Contingency included in cost estimates: ~28%
  - E.ON US overhead included in capital costs 3.5%
  - Capital expenditures are assumed to occur at year end.

- CCP data
  - Coal ash content: 11.5%
  - Coal SO_2 content: ~5.9 lb/mmBTU
  - Coal heat content: 22.16 mmBTU/ton
  - FGD removal efficiency:
    Units 1, 3, 4 98%
    Unit 2 (currently Unit 1) 94.3%

Appendix 2

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Projected Cash Flows

Annual Cash Flows Short-Term Options O&M Only *($ thousands)*		
Case	**Beneficial Reuse**	**Off-Site Landfill**
2008	[redacted]	
2009		
2010		
2011		
2012		
2013+		
Total		

$ thousands

Case **14/28** **2 landfills**

	Annual Cash Flows										
	Capital						**O&M**				**Total**
	Phase1	Phase2	Phase3	Phase4	Transmission	**Total Capital**	Non-Power	Power	Trans Ash	**Total O&M**	
2008	[redacted]										
2009											
2010											
2011											
2012											
2013											
2014											
2015											
2016											
2017											
2018											
2019											
2020											
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2029											
2030											
2031											
2032											
2033											
2034											
2035											
2036											
2037											
2038											
Total											

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$ thousands

Case 37 1 landfill

	Annual Cash Flows										
	Capital						O&M				Total
	Phase1	Phase2	Phase3	Phase4	Transmission	Total Capital	Non-Power	Power	Trans Ash	Total O&M	
2008											
2009											
2010											
2011											
2012											
2013											
2014											
2015											
2016											
2017											
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2032											
2033											
2034											
2035											
2036											
2037											
2038											
Total											

CCP Plan for Ghent Station
June 2009
Appendix 2 – Projected Cash Flows

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$ thousands

Case 41 1 pond

	Annual Cash Flows										
	Capital						O&M				Total
	Phase1	Phase2	Phase3	Phase4	Transmission	**Total Capital**	Non-Power	Power	Trans Ash	**Total O&M**	
2008	[redacted]										
2009											
2010											
2011											
2012											
2013											
2014											
2015											
2016											
2017											
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2030											
2031											
2032											
2033											
2034											
2035											
2036											
2037											
2038											
Total											

CCP Plan for Ghent Station
June 2009
Appendix 2 – Projected Cash Flows

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$ thousands

Case 42/28 1 pond/1 landfill

	Annual Cash Flows										
	Capital						O&M				Total
	Phase1	Phase2	Phase3	Phase4	Transmission	Total Capital	Non-Power	Power	Trans Ash	Total O&M	
2008	[redacted]										
2009											
2010											
2011											
2012											
2013											
2014											
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2016											
2017											
2018											
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2032											
2033											
2034											
2035											
2036											
2037											
2038											
Total											

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Case	Off-Site Landfill (O&M Only)		
	Capital	O&M	
Cost Escalation		6%	2%
2008			
2009			
2010			
2011			
2012			
2013			
2014			
2015			
2016			
2017			
2018			
2019			
2020			
2021			
2022			
2023			
2024			
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2026			
2027			
2028			
2029			
2030			
2031			
2032			
2033			
2034			
2035			
2036			
2037			
2038			
Total			

Appendix 3

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Revenue Requirements Detail

$ thousands

Case **Short-Term Beneficial Reuse (O&M Only)**

	Capital	O&M
2008	[redacted]	
2009		
2010		
2011		
2012		
2013+		
2009 PVRR		

$ thousands

Case **Short-Term Off-Site Landfill (O&M Only)**

	Capital	O&M
2008	[redacted]	
2009		
2010		
2011		
2012		
2013+		
2009 PVRR		

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$ thousands

Case 14/28 2 landfills

	Annual Revenue Requirements										
	Capital						O&M				Total
	Phase1	Phase2	Phase3	Phase4	Transmission	Total Capital	Non-Power	Power	Trans Ash	Total O&M	
2009											
2010											
2011											
2012											
2013											
2014											
2015											
2016											
2017											
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2053											
2054											
2055											
2056											
2057											
2058											
2009 PVRR											

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$ thousands

Case 37 1 landfill

	Annual Revenue Requirements										
	Capital						O&M				Total
	Phase1	Phase2	Phase3	Phase4	Transmission	Total Capital	Non-Power	Power	Trans Ash	Total O&M	
2009											
2010											
2011											
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2013											
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2052											
2053											
2054											
2055											
2056											
2057											
2058											
2009 PVRR											

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$ thousands

Case 41 1 pond

	Annual Revenue Requirements										
	Capital						O&M				Total
	Phase1	Phase2	Phase3	Phase4	Transmission	**Total Capital**	Non-Power	Power	Trans Ash	**Total O&M**	
2009	[redacted]										
2010											
2011											
2012											
2013											
2014											
2015											
2016											
2017											
2018											
2019											
2020											
2021											
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2055											
2056											
2057											
2058											
2009 PVRR											

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$ thousands

Case 42/28 1 pond/1 landfill

	Annual Revenue Requirements										
	Capital						O&M				Total
	Phase1	Phase2	Phase3	Phase4	Transmission	Total Capital	Non-Power	Power	Trans Ash	Total O&M	
2009	[redacted]										
2010											
2011											
2012											
2013											
2014											
2015											
2016											
2017											
2018											
2019											
2020											
2021											
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2050											
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2053											
2054											
2055											
2056											
2057											
2058											
2009 PVRR											

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Case **Off-Site Landfill (O&M Only)**

$ thousands

using 6% cost escalation

	Capital	O&M
2008	[redacted]	
2009		
2010		
2011		
2012		
2013		
2014		
2015		
2016		
2017		
2018		
2019		
2020		
2021		
2022		
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2032		
2033		
2034		
2035		
2036		
2037		
2038		
2009 PVRR		

using 2% cost escalation

	Capital	O&M
2008	[redacted]	
2009		
2010		
2011		
2012		
2013		
2014		
2015		
2016		
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2034		
2035		
2036		
2037		
2038		
2009 PVRR		

Appendix 4

Project Status *(As of April 2009)*

Detailed Design

The detailed design phase for Case 37 is currently in progress. Meetings are being conducted with the E.ON U.S. property appraiser and the individual owners of properties within the boundaries of Site F. After obtaining approval from these property owners, geotechnical, archaeological, ecological, and historical structures studies have begun. This will allow for the completion of the detailed engineering design and the start of the development of the permits for this location. The permits are expected to be submitted by the end of 2009.

Construction Schedule

The preliminary design for the landfill is to develop it in three distinct phases. This detail as well as the closure plan for each phase will be further developed in the detailed design phase. The current schedule is shown in Table A4-1.

Table A4-1: Preliminary Construction Schedule

Task	Schedule
Property acquisition	3rd Quarter 2009
Begin first phase landfill development	2nd Quarter 2010
Finish first phase landfill development	4th Quarter 2014
Begin second phase landfill development	2nd Quarter 2018
Finish second phase landfill development	4th Quarter 2019
Begin third phase landfill development	2nd Quarter 2024
Finish third phase landfill development	4th Quarter 2026

The risks associated with the project include the following:

- Inability to reach a settlement on purchase price for one or more of the properties required for the site, resulting in lengthy eminent domain litigation
- Discovery of unknown geotechnical issues
- Litigation and intervention of the 401/404 permits for Sites E/F could delay the construction of this section of the work
- Failure of major components during start-up
- Unseasonable weather, such as exceptionally heavy rainfall, late spring, early on-set of winter, etc.
- Engineering design failure of a component of design
- Contractor delays due to shortage of materials or manpower issues
- Change in regulations

EXHIBIT B

Revenue Requirements Summary
2009 Amended Plan - KU

		2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Project 30	**Ghent Landfill - Phase I**										
	Revenue Requirement										
	Eligible Plant	4,321,671	46,476,848	105,485,803	177,577,356	191,133,916	201,941,953	202,576,976	203,254,220	203,969,979	203,969,979
	Less: Retired Plant	-	-	-	-	-	-	-	-	-	-
	Less: Accumulated Depreciation	-	-	-	-	(5,110,443)	(10,744,624)	(16,396,577)	(22,067,370)	(27,758,132)	(33,448,895)
	Plus: Accumulated Depreciation on retired plant	-	-	-	-	-	-	-	-	-	-
	Less: Deferred Tax Balance	-	-	-	-	(732,114)	(3,915,287)	(6,717,731)	(9,167,625)	(11,289,716)	(13,100,909)
	Plus: Deferred Tax Balance on retired plant	-	-	-	-	-	-	-	-	-	-
	Environmental Compliance Rate Base	4,321,671	46,476,848	105,485,803	177,577,356	185,291,361	187,282,042	179,464,668	172,019,025	164,922,131	157,420,175
	Rate of return	11.12%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
		$ 480,509	$ 5,098,393	$ 11,571,030	$ 19,478,952	$ 20,325,122	$ 20,543,496	$ 19,685,976	$ 18,869,243	$ 18,090,765	$ 17,267,855
	Operating expenses	84,800	121,349	128,630	136,348	19,003,308	20,143,507	21,352,117	22,633,244	23,991,239	25,430,713
	Annual Depreciation expense	-	-	-	-	5,110,443	5,634,180	5,651,953	5,670,793	5,690,762	5,690,762
	Less depreciation on retired plant	-	-	-	-	-	-	-	-	-	-
	Annual Property Tax expense	-	6,483	69,716	158,229	266,366	279,035	286,796	279,274	271,780	264,318
	Total OE	$ 84,800	$ 127,832	$ 198,346	$ 294,577	$ 24,380,117	$ 26,056,723	$ 27,290,866	$ 28,583,310	$ 29,953,782	$ 31,385,793
	Total E(m)	565,309	5,226,225	11,769,376	19,773,528	44,705,239	46,600,208	46,976,843	47,452,553	48,044,547	48,653,648

EXHIBIT C

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

THE APPLICATION OF KENTUCKY UTILITIES COMPANY FOR A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY AND APPROVAL OF ITS 2009 COMPLIANCE PLAN FOR RECOVERY BY ENVIRONMENTAL SURCHARGE	))))))	CASE NO. 2009-00197

DIRECT TESTIMONY OF
JOHN N. VOYLES, JR.
VICE PRESIDENT, TRANSMISSION AND GENERATION SERVICES
KENTUCKY UTILITIES COMPANY

Filed: June 26, 2009

contain sufficient capacity for bottom ash storage for approximately 30 years. The Main Pond will have approximately six (6) years of projected remaining capacity after elevation 912 feet is completed in 2012.

Exhibit JNV-8 is a conceptual design report for the Brown station ash treatment basin, prepared by the Fuller Mossbarger Scott and May engineering firm. Exhibit JNV-9 is a preliminary design report for the Brown station ash treatment basin, also prepared by Fuller Mossbarger Scott and May engineering firm. Exhibits JNV-8 and JNV-9 are on the compact disc included with this testimony and provide more details associated with this project.

Q. Is this project a cost-effective means of complying with environmental regulations and permits?

A. Yes, this project allows KU to continue to comply with all applicable environmental regulations. As first demonstrated in Case No. 2004-00426, and consistent with the 2006 ECR Update made to the Commission staff, the phased approach to the construction of the ash treatment basins continues to be the least-cost approach to manage CCP at the Brown station. As detailed in the testimony of Mr. Schram, high costs continue to preclude cost effective off-site alternatives.

Project 30 – Ghent Station Landfill

Q. Please describe the new landfill at the Ghent Station (Project 30), the anticipated cost and the associated timeline.

A. Project 30 consists of the first phase (Phase I) of a three phase, new landfill construction project at the Ghent station for continued on-site management of CCP. Completion of this project requires the procurement of approximately 350 acres of

land and relocation of approximately 2,500 linear feet of transmission line, existing underground utilities and a small cemetery (currently known to contain six burial plots). The project includes a transport system for the CCP material and the installation of a leachate collection/sediment retention pond. Phase I is expected to cost approximately $204 million with a total project capital cost (Phases I-III) estimated to be approximately $360 million. Phase I construction is expected to take 18-24 months to complete and is expected to be in-service by 2013.

Of the two existing on-site ash treatment basins, Basin #2 is currently the only operational basin at the Ghent station. Basin #1 reached its maximum desired capacity in 1995. Basin #2 was put into service in 1995 with a storage capacity of 2,580 acre-feet. In Case No. 2002-00208, KU advised the Commission that Basin #2 would be constructed in two phases. Detailed bids indicated that the two phase construction to elevation 800 feet had a projected total cost of $25.9 million (2002 dollars), while construction to 800 feet in one project had a total cost of $17.3 million. To take advantage of this significant cost savings, KU modified the construction project and undertook a single project to elevate the dike to 800 feet. As mentioned in Exhibit CRS-3 of Mr. Schram's testimony (the Coal Combustion Byproduct Plan for the Ghent station), vertical expansion of Basin #2 beyond 800 feet at Ghent was determined to be cost prohibitive.

Project 30 (Phase I of the proposed new landfill at the Ghent generating station) includes the following scope of work:

1. **Initial Siting Study** (Completed) – This phase evaluated various CCP storage locations on existing Ghent property and the area surrounding the plant. Initially, 42 landfill and impoundment scenarios were evaluated during this study.

2. **Conceptual Design** (Completed) – This phase took the results of the Initial Siting Study and developed 5 storage alternatives and provided scope of work estimates and net present value evaluations. Based on this data the best storage alternative was chosen, Case #37 – Single 25 year, landfill located on both existing plant and non-plant property.

3. **Final Design** (In Progress) – This phase will design and permit Case #37. Work in this phase will include the landfill design/permitting, wetlands/stream mitigation, transmission/distribution line relocation design, various environmental studies, etc. The goal of this phase is to obtain the construction permits, develop Issued for Construction drawings and specifications for all phases, as well as develop the landfill O&M manual.

4. **Phase I Construction** – Once the Certificate of Public Convenience and Necessity ("CPCN") and the permits have been received, a contractor will be chosen to perform the following (this is a high level list of activities):

- Mobilization
- Clearing and grubbing of the landfill and borrow areas
- Construction of stormwater/sediment ponds
- Grade work to attain the proper subgrade of the landfill
- Development of the borrow site(s)
- Installation of the liner system
- Installation of the leachate collection system, ponds, as well as the transfer system
- Construction of new site access roads
- Installation of the gypsum fines systems
- Construction of the CCP transfer storage facility across US-42
- Installation of the pipe conveyor
- Construction of the Gypsum Dewatering facility
- Upgrades to existing CCP transfer systems
- De-mobilization

Exhibit JNV-10 consists of two GAI Consultants reports on the initial siting study and conceptual design of the Ghent station landfill and is on the compact disc included with this testimony. Exhibit JNV-10 provides more details associated with this project.

Q. Is KU requesting a CPCN for the proposed landfill at Ghent (Project 30)?

A. Yes, as discussed in the testimony of Mr. Bellar, KU is requesting a CPCN for Project 30 in Exhibit JNV-1. Project 30 is associated with the construction of a new landfill and supporting systems at the Ghent station.

Q. Why is KU seeking a CPCN for Project 30, the proposed Ghent landfill at this time?

A. As discussed in Exhibit CRS-3 of Mr. Schram's testimony, KU's Ghent station produces three (3) coal combustion byproducts: bottom ash, fly ash and gypsum. The station has two (2) existing on-site treatment basins for ash and two (2) stacking areas for gypsum. Basin #1 is at its maximum desired capacity. As discussed in Exhibit CRS-3, Basin #2 and the gypsum stack facilities are both forecasted to reach their maximum desired capacity in 2012. In accordance with the CCP Strategy and the analysis presented in Mr. Schram's testimony, the recommended long-term CCP management alternative is Project 30, a landfill for all CCP material. The preliminary construction schedule for this project requires construction of the landfill to begin in 2010. As such, KU is requesting a CPCN in support of this project.

Q. What alternatives to the proposed project were evaluated?

A. The Initial Siting Study identified 42 potential alternatives based on combinations of variables including

- storage and CCP transport methods

- site locations
- transmission line relocation needs

Consistent with the CCP Strategy, opportunities for beneficial reuse were also evaluated by the Companies. The beneficial reuse alternatives at Ghent are discussed in Project 33. Mr. Schram's testimony provides details associated with the evaluation of the alternatives at Ghent.

Q. Is the proposed new on-site landfill at Ghent (Project 30) consistent with the Companies' strategy for long-term management of CCP?

A. Yes. The landfill ensures adequate on-site CCP management capacity exists for the long-term and will be constructed in multiple phases. Furthermore, as discussed in Mr. Schram's testimony, analytical assessments have been performed to identify and utilize any cost effective beneficial reuse alternatives in order to minimize environmental impact and promote environmental stewardship.

Q. Is this project a cost-effective means of complying with environmental regulations and permits?

A. Yes. Project 30 provides the best means of compliance with discharge and water quality regulations. Mr. Schram's testimony provides details associated with the economics of this project.

Project 31 -- Trimble County Station
Ash Treatment Basin and Gypsum Storage Pond

Q. Please describe the Trimble County Station Ash Treatment Basin and Gypsum Storage Pond (Project 31), the anticipated cost and the associated timeline.

A. The primary CCP managed at the Trimble County station are bottom ash, fly ash and gypsum, all of which are currently managed either through treatment in the 85 acre

EXHIBIT D

Revenue Requirments Summary
Gypsum Disposal at Sterling Materials

			2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Revenue Requirement													
Eligible Plant			$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 203,254,220	$ 203,969,979	$ 203,969,979	$ 248,969,979
Less Gypsum Plant			$ -	$ (14,090,000)	$ (40,060,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (98,110,000)
Revised Eligible Plant			$ 4,321,671	$ 32,388,846	$ 65,425,803	$ 124,467,356	$ 138,023,918	$ 148,831,953	$ 149,468,976	$ 150,144,220	$ 150,859,979	$ 150,859,979	$ 150,859,979
Less Accumulated Depreciation							$ (3,690,414)	$ (7,842,826)	$ (12,013,010)	$ (16,202,034)	$ (20,411,027)	$ (24,620,020)	$ (28,829,013)
Less Deferred Tax Balance							$ (528,683)	$ (2,857,926)	$ (4,921,730)	$ (6,731,945)	$ (8,301,165)	$ (9,641,200)	$ (11,289,441)
Environmental Compliance Rate Base			$ 4,321,671	$ 32,388,846	$ 65,425,803	$ 124,467,356	$ 133,804,821	$ 138,131,202	$ 132,534,236	$ 127,210,241	$ 122,147,788	$ 116,598,759	$ 110,741,525
Rate of Return			11.1%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
Assumed Tons (1.155)	1,000,000		$ 480,509	$ 3,553,056	$ 7,177,211	$ 13,654,069	$ 14,678,389	$ 15,152,993	$ 14,539,006	$ 13,954,963	$ 13,399,612	$ 12,790,884	$ 12,148,345
86.7500% Cubic yards	867,500												
Operating Expenses			$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,556
less Gypsum to On-site Landfill							$ (8,887,032)	$ (9,420,254)	$ (9,985,469)	$ (10,584,598)	$ (11,219,674)	$ (11,892,854)	$ (12,606,425)
Gypsum to Sterling	**$ 10.50**						$ 10,500,000	$ 11,130,000	$ 11,797,800	$ 12,505,668	$ 13,256,008	$ 14,051,369	$ 14,894,451
Net Operating			$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 20,616,276	$ 21,853,253	$ 23,164,448	$ 24,554,314	$ 26,027,573	$ 27,589,228	$ 29,244,581
Annual Depreciation							$ 3,690,414	$ 4,152,411	$ 4,170,184	$ 4,189,024	$ 4,208,993	$ 4,208,993	$ 4,208,993
Annual Property Tax Expense				$ 6,483	$ 69,718	$ 158,229	$ 266,366	$ 279,017	$ 286,798	$ 279,274	$ 271,751	$ 264,317	$ 264,317
Total OE			$ 84,800	$ 127,832	$ 198,348	$ 294,577	$ 24,573,056	$ 26,284,681	$ 27,621,430	$ 29,022,612	$ 30,508,317	$ 32,062,537	$ 33,717,891
Total E(m) Gypsum to Sterling		$ 476,298,826	$ 565,309	$ 3,680,888	$ 7,375,559	$ 13,948,646	$ 39,251,445	$ 41,437,674	$ 42,160,436	$ 42,977,575	$ 43,907,929	$ 44,853,421	$ 45,866,236
Total E(m) - Project 30 (See below)		$ 555,782,375	$ 565,309	$ 5,226,225	$ 11,769,378	$ 19,773,528	$ 44,705,239	$ 46,600,208	$ 46,976,843	$ 47,458,553	$ 48,044,547	$ 48,653,648	$ 55,312,476
Difference **PVRR**	**7.81%**	**$ (79,483,549)**	$ -	$ (1,545,337)	$ (4,393,819)	$ (5,824,882)	$ (5,453,794)	$ (5,162,534)	$ (4,816,407)	$ (4,480,978)	$ (4,136,618)	$ (3,800,227)	$ (9,446,240)
Date			12/31/2009	12/31/2010	12/31/2011	12/31/2012	12/31/2013	12/31/2014	12/31/2015	12/31/2016	12/31/2017	12/31/2018	12/31/2019

Revenue Requirments Summary
2009 Amended Plan
Project 30 Ghent Landfill Phase I
See Exhibit B

			2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
													Start Phase II
Revenue Requirement													$ 40,000,000
Eligible Plant			$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 203,254,220	$ 203,969,979	$ 203,969,979	$ 248,969,979
Less Gypsum Plant			$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Revised Eligible Plant			$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 203,254,220	$ 203,969,979	$ 203,969,979	$ 248,969,979
Less Accumulated Depreciation							$ (5,110,443)	$ (10,744,623)	$ (16,396,576)	$ (22,067,369)	$ (27,758,131)	$ (33,448,893)	$ (40,395,155)
Less Deferred Tax Balance							$ (732,114)	$ (3,915,341)	$ (6,717,677)	$ (9,168,992)	$ (11,289,232)	$ (13,098,586)	$ (15,818,743)
Environmental Compliance Rate Base			$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 185,291,361	$ 187,281,989	$ 179,464,723	$ 172,017,859	$ 164,922,616	$ 157,422,500	$ 192,756,081
Rate of Return			11.1%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
			$ 480,509	$ 5,098,729	$ 11,571,793	$ 19,480,236	$ 20,326,462	$ 20,544,834	$ 19,687,280	$ 18,870,359	$ 18,092,011	$ 17,269,248	$ 21,145,342
Operating Expenses			$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,555.78
less Gypsum to On-site Landfill							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Gypsum to Sterling							$ -	$ -	$ -	$ -	$ -	$ -	$ -
Net Operating			$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,556
Annual Depreciation							$ 5,110,443	$ 5,634,180	$ 5,651,953	$ 5,670,793	$ 5,690,762	$ 5,690,762	$ 6,946,262
Annual Property Tax Expense				$ 6,483	$ 69,718	$ 158,229	$ 266,366	$ 279,017	$ 286,798	$ 279,274	$ 271,751	$ 264,317	$ 264,317
Total OE			$ 84,800	$ 127,832	$ 198,348	$ 294,577	$ 24,380,117	$ 26,056,704	$ 27,290,868	$ 28,583,311	$ 29,953,752	$ 31,385,792	$ 34,167,134
Total E(m) Gypsum to On-site Landfill as Calculated			$ 565,309	$ 5,226,561	$ 11,770,141	$ 19,774,813	$ 44,706,579	$ 46,601,539	$ 46,978,148	$ 47,453,670	$ 48,045,763	$ 48,655,040	$ 55,312,476
Total E(m) Gypsum to On-site Landfill per KU			$ 565,309	$ 5,226,225	$ 11,769,378	$ 19,773,528	$ 44,705,239	$ 46,600,208	$ 46,976,843	$ 47,458,553	$ 48,044,547	$ 48,653,648	
Calculation Check Difference			$ -	$ 336	$ 763	$ 1,285	$ 1,340	$ 1,331	$ 1,305	$ (4,883)	$ 1,216	$ 1,392	
Site E/F Hauling cost of Ash 2.25 mile round trip							$ 2,822,723	$ 2,992,086	$ 3,171,612	$ 3,361,908	$ 3,563,623	$ 3,777,440	$ 4,004,087
Haul Road Maintenance							$ 53,529	$ 56,741	$ 60,145	$ 63,754	$ 67,579	$ 71,634	$ 75,932
Total							$ 2,876,252	$ 3,048,827	$ 3,231,757	$ 3,425,662	$ 3,631,202	$ 3,849,074	$ 4,080,018
Reduce by 50% for Site M			$ -	$ -	$ -	$ -	$ 1,438,126	$ 1,524,414	$ 1,615,878	$ 1,712,831	$ 1,815,601	$ 1,924,537	$ 2,040,009
Difference **PVRR**	**7.81%**	**$ (21,865,903)**											

Revenue Requirments Summary
Gypsum Disposal at Sterling Materials

			2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
													Start Phase II
Revenue Requirement													$ 40,000,000
Eligible Plant			$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 323,969,979	$ 353,969,979	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
Less Gypsum Plant			$ (133,110,000)	$ (133,110,000)	$ (133,110,000)	$ (133,110,000)	$ (133,110,000)	$ (173,110,000)	$ (203,110,000)	$ (209,140,021)	$ (209,140,021)	$ (209,140,021)	$ (169,140,021)
Revised Eligible Plant			$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 190,859,979
Less Accumulated Depreciation			$ (33,038,006)	$ (37,246,999)	$ (41,455,992)	$ (45,664,985)	$ (49,873,978)	$ (54,082,972)	$ (58,291,965)	$ (62,500,958)	$ (66,709,951)	$ (70,918,944)	$ (76,243,937)
Less Deferred Tax Balance			$ (12,937,683)	$ (14,585,925)	$ (16,234,167)	$ (17,882,408)	$ (19,530,650)	$ (21,178,892)	$ (22,827,133)	$ (24,475,375)	$ (26,123,617)	$ (27,771,858)	$ (29,857,126)
Environmental Compliance Rate Base			$ 104,884,290	$ 99,027,055	$ 93,169,820	$ 87,312,585	$ 81,455,351	$ 75,598,116	$ 69,740,881	$ 63,883,646	$ 58,026,411	$ 52,169,177	$ 84,758,916
Rate of Return			10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
Assumed Tons (1.155)	1,000,000		$ 11,505,807	$ 10,863,268	$ 10,220,729	$ 9,578,191	$ 8,935,652	$ 8,293,113	$ 7,650,575	$ 7,008,036	$ 6,365,497	$ 5,722,959	$ 9,298,053
86.7500% Cubic yards	867,500												
Operating Expenses			$ 28,573,949	$ 30,288,386	$ 32,105,689	$ 34,032,031	$ 36,073,952	$ 38,238,390	$ 40,532,693	$ 42,964,655	$ 45,542,534	$ 48,275,086	$ 51,171,591
less Gypsum to On-site Landfill			$ (13,362,811)	$ (14,164,579)	$ (15,014,454)	$ (15,915,321)	$ (16,870,241)	$ (17,882,455)	$ (18,955,402)	$ (20,092,727)	$ (21,298,290)	$ (22,576,188)	$ (23,930,759)
Gypsum to Sterling	**$ 10.50**		$ 15,788,118	$ 16,735,405	$ 17,739,529	$ 18,803,901	$ 19,932,135	$ 21,128,063	$ 22,395,747	$ 23,739,492	$ 25,163,861	$ 26,673,693	$ 28,274,114
Net Operating			$ 30,999,256	$ 32,859,211	$ 34,830,764	$ 36,920,610	$ 39,135,847	$ 41,483,997	$ 43,973,037	$ 46,611,419	$ 49,408,105	$ 52,372,591	$ 55,514,946
Annual Depreciation			$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 5,324,993
Annual Property Tax Expense			$ 322,630	$ 367,985	$ 367,985	$ 367,985	$ 367,985	$ 367,985	$ 419,820	$ 458,696	$ 466,510	$ 466,510	$ 466,510
Total OE			$ 35,530,879	$ 37,436,190	$ 39,407,743	$ 41,497,588	$ 43,712,825	$ 46,060,976	$ 48,601,850	$ 51,279,108	$ 54,083,607	$ 57,048,094	$ 61,306,449
Total E(m) Gypsum to Sterling		$ 476,298,826	$ 47,036,686	$ 48,299,458	$ 49,628,472	$ 51,075,779	$ 52,648,477	$ 54,354,089	$ 56,252,425	$ 58,287,144	$ 60,449,105	$ 62,771,052	$ 70,604,502
Total E(m) - Project 30 (See below)		$ 555,782,375	$ 60,594,706	$ 61,145,021	$ 61,752,847	$ 62,469,712	$ 63,302,156	$ 69,590,749	$ 74,557,268	$ 76,324,534	$ 77,376,925	$ 78,576,175	$ 79,939,378
Difference **PVRR**	**7.81%**	**$ (79,483,549)**	$ (13,558,020)	$ (12,845,563)	$ (12,124,375)	$ (11,393,932)	$ (10,653,679)	$ (15,236,660)	$ (18,304,843)	$ (18,037,390)	$ (16,927,821)	$ (15,805,123)	$ (9,334,876)
Date			12/31/2020	12/31/2021	12/31/2022	12/31/2023	12/31/2024	12/31/2025	12/31/2026	12/31/2027	12/31/2028	12/31/2029	12/31/2030

Revenue Requirments Summary
2009 Amended Plan
Project 30 Ghent Landfill Phase I
See Exhibit B

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
						Start Phase III					
Revenue Requirement	$ 40,000,000					$ 40,000,000	$ 30,000,000	$ 6,030,021			
Eligible Plant	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 323,969,979	$ 353,969,979	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
Less Gypsum Plant	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Revised Eligible Plant	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 323,969,979	$ 353,969,979	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
Less Accumulated Depreciation	$ (48,317,917)	$ (56,240,679)	$ (64,163,440)	$ (72,086,202)	$ (80,008,964)	$ (89,047,726)	$ (98,923,488)	$ (108,967,487)	$ (119,011,486)	$ (129,055,485)	$ (139,099,485)
Less Deferred Tax Balance	$ (18,921,296)	$ (22,023,850)	$ (25,126,403)	$ (28,228,957)	$ (31,331,510)	$ (34,871,089)	$ (38,738,438)	$ (42,671,668)	$ (46,604,898)	$ (50,538,128)	$ (54,471,358)
Environmental Compliance Rate Base	$ 216,730,766	$ 205,705,451	$ 194,680,135	$ 183,654,820	$ 172,629,505	$ 200,051,164	$ 216,308,054	$ 208,360,845	$ 194,383,616	$ 180,406,387	$ 166,429,157
Rate of Return	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
	$ 23,775,365	$ 22,565,888	$ 21,356,411	$ 20,146,934	$ 18,937,457	$ 21,945,613	$ 23,728,993	$ 22,857,185	$ 21,323,883	$ 19,790,581	$ 18,257,279
Operating Expenses	$ 28,573,949.13	$ 30,288,386.07	$ 32,105,689.24	$ 34,032,030.59	$ 36,073,952.43	$ 38,238,389.57	$ 40,532,692.95	$ 42,964,654.53	$ 45,542,533.80	$ 48,275,085.83	$ 51,171,590.97
less Gypsum to On-site Landfill	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Gypsum to Sterling	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Net Operating	$ 28,573,949	$ 30,288,386	$ 32,105,689	$ 34,032,031	$ 36,073,952	$ 38,238,390	$ 40,532,693	$ 42,964,655	$ 45,542,534	$ 48,275,086	$ 51,171,591
Annual Depreciation	$ 7,922,762	$ 7,922,762	$ 7,922,762	$ 7,922,762	$ 7,922,762	$ 9,038,762	$ 9,875,762	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999
Annual Property Tax Expense	$ 322,630	$ 367,985	$ 367,985	$ 367,985	$ 367,985	$ 367,985	$ 419,820	$ 458,696	$ 466,510	$ 466,510	$ 466,510
Total OE	$ 36,819,341	$ 38,579,133	$ 40,396,436	$ 42,322,778	$ 44,364,700	$ 47,645,137	$ 50,828,274	$ 53,467,349	$ 56,053,043	$ 58,785,595	$ 61,682,100
Total E(m) Gypsum to On-site Landfill as Calculated	$ 60,594,706	$ 61,145,021	$ 61,752,847	$ 62,469,712	$ 63,302,156	$ 69,590,749	$ 74,557,268	$ 76,324,534	$ 77,376,925	$ 78,576,175	$ 79,939,378
Total E(m) Gypsum to On-site Landfill per KU											
Calculation Check Difference											
Site E/F Hauling cost of Ash 2.25 mile round trip	$ 4,244,332	$ 4,498,992	$ 4,768,931	$ 5,055,067	$ 5,358,371	$ 5,679,873	$ 6,020,666	$ 6,381,906	$ 6,764,820	$ 7,170,709	$ 7,600,952
Haul Road Maintenance	$ 80,488	$ 85,317	$ 90,436	$ 95,862	$ 101,614	$ 107,711	$ 114,174	$ 121,024	$ 128,285	$ 135,982	$ 144,141
Total	$ 4,324,820	$ 4,584,309	$ 4,859,367	$ 5,150,929	$ 5,459,985	$ 5,787,584	$ 6,134,839	$ 6,502,930	$ 6,893,105	$ 7,306,692	$ 7,745,093
Reduce by 50% for Site M	$ 2,162,410	$ 2,292,154	$ 2,429,684	$ 2,575,465	$ 2,729,993	$ 2,893,792	$ 3,067,420	$ 3,251,465	$ 3,446,553	$ 3,653,346	$ 3,872,547
Difference **PVRR** **7.81%** **$ (21,865,903)**											

Revenue Requirments Summary
Gypsum Disposal at Sterling Materials

			2031	2032	2033	2034	2035	2036	2037	
Revenue Requirement			$ 40,000,000							
Eligible Plant			$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	
Less Gypsum Plant			$ (129,140,021)	$ (129,140,021)	$ (129,140,021)	$ (129,140,021)	$ (129,140,021)	$ (129,140,021)	$ (129,140,021)	
Revised Eligible Plant			$ 230,859,979	$ 230,859,979	$ 230,859,979	$ 230,859,979	$ 230,859,979	$ 230,859,979	$ 230,859,979	
Less Accumulated Depreciation			$ (82,684,930)	$ (89,125,923)	$ (95,566,916)	$ (102,007,909)	$ (108,448,902)	$ (114,889,895)	$ (121,330,888)	
Less Deferred Tax Balance			$ (32,379,419)	$ (34,901,711)	$ (37,424,004)	$ (39,946,297)	$ (42,468,590)	$ (44,990,883)	$ (47,513,176)	
Environmental Compliance Rate Base			$ 115,795,631	$ 106,832,345	$ 97,869,059	$ 88,905,773	$ 79,942,487	$ 70,979,202	$ 62,015,916	
Rate of Return			10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	
Assumed	Tons (1.155)	1,000,000	$ 12,702,781	$ 11,719,508	$ 10,736,236	$ 9,752,963	$ 8,769,691	$ 7,786,418	$ 6,803,146	
86.7500%	Cubic yards	867,500								
Operating Expenses			$ 54,241,886	$ 57,496,400	$ 60,946,184	$ 64,602,955	$ 68,479,132	$ 72,587,880	$ 76,943,153	
less Gypsum to On-site Landfill			$ (25,366,604)	$ (26,888,601)	$ (28,501,917)	$ (30,212,032)	$ (32,024,754)	$ (33,946,239)	$ (35,983,013)	
Gypsum to Sterling		**$ 10.50**	$ 29,970,561	$ 31,768,795	$ 33,674,922	$ 35,695,418	$ 37,837,143	$ 40,107,371	$ 42,513,814	
Net Operating			$ 58,845,843	$ 62,376,594	$ 66,119,189	$ 70,086,341	$ 74,291,521	$ 78,749,012	$ 83,473,953	
Annual Depreciation			$ 6,440,993	$ 6,440,993	$ 6,440,993	$ 6,440,993	$ 6,440,993	$ 6,440,993	$ 6,440,993	
Annual Property Tax Expense			$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	
Total OE			$ 65,753,346	$ 69,284,096	$ 73,026,692	$ 76,993,843	$ 81,199,024	$ 85,656,515	$ 90,381,456	
Total E(m) Gypsum to Sterling		$ 476,298,826	$ 78,456,126	$ 81,003,604	$ 83,762,928	$ 86,746,807	$ 89,968,715	$ 93,442,933	$ 97,184,602	$ 1,547,998,022
Total E(m) - Project 30 (See below)		$ 555,782,375	$ 81,476,372	$ 83,197,583	$ 85,114,065	$ 87,237,534	$ 89,580,409	$ 92,155,855	$ 94,977,826	$ 1,754,455,070
Difference	**PVRR**	**7.81% $ (79,483,549)**	$ (3,020,245)	$ (2,193,978)	$ (1,351,137)	$ (490,727)	$ 388,306	$ 1,287,079	$ 2,206,776	$ (206,457,048)
Date			12/31/2031	12/31/2032	12/31/2033	12/31/2034	12/31/2035	12/31/2036	12/31/2037	
										$ (206,457,048)

Revenue Requirments Summary
2009 Amended Plan
Project 30 Ghent Landfill Phase I
See Exhibit B

		2031	2032	2033	2034	2035	2036	2037
Revenue Requirement								
Eligible Plant		$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
Less Gypsum Plant		$ -	$ -	$ -	$ -	$ -	$ -	$ -
Revised Eligible Plant		$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
Less Accumulated Depreciation		$ (149,143,484)	$ (159,187,483)	$ (169,231,482)	$ (179,275,482)	$ (189,319,481)	$ (199,363,480)	$ (209,407,479)
Less Deferred Tax Balance		$ (58,404,588)	$ (62,337,818)	$ (66,271,048)	$ (70,204,279)	$ (74,137,509)	$ (78,070,739)	$ (82,003,969)
Environmental Compliance Rate Base		$ 152,451,928	$ 138,474,699	$ 124,497,469	$ 110,520,240	$ 96,543,010	$ 82,565,781	$ 68,588,552
Rate of Return		10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
		$ 16,723,976	$ 15,190,674	$ 13,657,372	$ 12,124,070	$ 10,590,768	$ 9,057,466	$ 7,524,164
Operating Expenses		$ 54,241,886.43	$ 57,496,399.62	$ 60,946,183.60	$ 64,602,954.61	$ 68,479,131.89	$ 72,587,879.80	$ 76,943,152.59
less Gypsum to On-site Landfill		$ -	$ -	$ -	$ -	$ -	$ -	$ -
Gypsum to Sterling		$ -	$ -	$ -	$ -	$ -	$ -	$ -
Net Operating		$ 54,241,886	$ 57,496,400	$ 60,946,184	$ 64,602,955	$ 68,479,132	$ 72,587,880	$ 76,943,153
Annual Depreciation		$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999
Annual Property Tax Expense		$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510
Total OE		$ 64,752,395	$ 68,006,908	$ 71,456,692	$ 75,113,463	$ 78,989,641	$ 83,098,389	$ 87,453,661
Total E(m) Gypsum to On-site Landfill as Calculated		$ 81,476,372	$ 83,197,583	$ 85,114,065	$ 87,237,534	$ 89,580,409	$ 92,155,855	$ 94,977,826
Total E(m) Gypsum to On-site Landfill per KU								
Calculation Check Difference								
Site E/F	Hauling cost of Ash 2.25 mile round trip	$ 8,057,009	$ 8,540,429	$ 9,052,855	$ 9,596,026	$ 10,171,788	$ 10,782,095	$ 11,429,021
	Haul Road Maintenance	$ 152,790	$ 161,957	$ 171,675	$ 181,975	$ 192,894	$ 204,467	$ 216,735
Total		$ 8,209,799	$ 8,702,387	$ 9,224,530	$ 9,778,002	$ 10,364,682	$ 10,986,563	$ 11,645,756
Reduce by 50% for Site M		$ 4,104,899	$ 4,351,193	$ 4,612,265	$ 4,889,001	$ 5,182,341	$ 5,493,281	$ 5,822,878
Difference	**PVRR**	**7.81% $ (21,865,903)**						

EXHIBIT E

GHENT LANDFILL (PHASE I)

Operating & Maintenance Costs ($)	2010	2011	2012	2013	2014	2015	2016	2017
Ground Water Sampling and Testing	14,045	14,888	15,781	16,728	17,731	18,795	19,923	21,118
Leachate Management	-	-	-	83,639	88,657	93,977	99,616	105,592
Surveying (As-builts)	16,292	17,270	18,306	19,404	20,569	21,803	23,111	24,497
Pump House Fly Ash and Bottom Ash Segregation	75,843	80,394	85,217	-	-	-	-	-
Dry Ash/Pyrites Handling System - Conveyor	-	-	-	2,161,234	2,290,908	2,428,363	2,574,065	2,728,509
Dry Gypsum Handling System	-	-	-	682,495	723,445	766,851	812,863	861,634
Leachate Pump House	15,169	16,079	17,043	18,066	19,150	20,299	21,517	22,808
Hauling Fly Ash and Bottom Ash to Landfill								
Loading	-	-	-	1,338,226	1,418,519	1,503,630	1,593,848	1,689,479
Phase 1 - 2.25 Mile Round Trip	-	-	-	2,822,723	2,992,087	3,171,612	3,361,909	3,563,623
Hauling Gypsum to Landfill								
Loading	-	-	-	1,746,384	1,851,167	1,962,237	2,079,972	2,204,770
Phase 1 - 2.25 Mile Round Trip	-	-	-	3,997,156	4,236,986	4,491,205	4,760,677	5,046,318
Landfilling Fly Ash and Bottom Ash	-	-	-	2,408,806	2,553,334	2,706,534	2,868,927	3,041,062
Landfilling Gypsum	-	-	-	3,143,492	3,332,101	3,532,027	3,743,949	3,968,586
Ash/Gypsum Placement QA/QC	-	-	-	54,198	57,450	60,897	64,551	68,424
Maintenance								
Landfills	-	-	-	301,101	319,167	338,317	358,616	380,133
Haul Roads	-	-	-	53,529	56,741	60,145	63,754	67,579
Dust Control	-	-	-	156,126	165,494	175,424	185,949	197,106
TOTAL	**121,349**	**128,630**	**136,348**	**19,003,308**	**20,143,507**	**21,352,117**	**22,633,244**	**23,991,239**

EXHIBIT F

GHENT LANDFILL (PHASE I)

Capital Expenditures ($ million)	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Total
Property Acquisition											
Disposal Site(s)	-	-	4.66	-	-	-	-	-	-	-	**4.66**
Overhead Electric Line(s)	-	-	0.03	-	-	-	-	-	-	-	**0.03**
Buffer Zones	-	-	-	-	2.37	-	-	-	-	-	**2.37**
Higher End House Acquisition	-	-	1.40	-	-	-	-	-	-	-	**1.40**
Engineering, Permits and Fees, and Construction Documents	0.46	2.00	-	-	-	-	-	-	-	-	**2.46**
Stream and Wetland Mitigation	-	-	4.14	-	-	-	-	-	-	-	**4.14**
Ground Water Monitoring System	-	0.27	-	-	-	-	-	-	-	-	**0.27**
Transmission Line Relocation Design, Engineering, and Construction	-	-	-	-	0.82	-	-	-	-	-	**0.82**
CCWD Relocation	-	-	0.12	-	-	-	-	-	-	-	**0.12**
Pump House Fly Ash and Bottom Ash Segregation	-	0.72	-	-	-	-	-	-	-	-	**0.72**
Dry Ash/Pyrites Handling System - Conveyor	-	-	16.29	27.08	38.93	-	-	-	-	-	**82.31**
Dry Gypsum Handling System	-	-	7.79	15.96	13.05	-	-	-	-	-	**36.80**
Gypsum Fines Project	-	0.74	6.30	6.30	-	-	-	-	-	-	**13.34**
Initial Site Preparation											
Clearing, Grubbing, and Site Preparation	-	-	-	0.62	0.65	0.69	-	-	-	-	**1.96**
Stripping and Stockpiling Soil	-	-	-	0.50	0.53	0.56	-	-	-	-	**1.58**
Hauling Topsoil - Phase 1 - 1.0 Mile Round Trip	-	-	-	0.19	0.20	0.21	-	-	-	-	**0.59**
Erosion and Sedimentation Controls	-	-	-	0.06	0.06	0.06	-	-	-	-	**0.18**
Sedimentation Pond	-	-	-	0.33	-	-	-	-	-	-	**0.33**
Collection Channels (Fabriform)	-	-	-	0.36	0.38	0.40	-	-	-	-	**1.15**
Diversion Channels (Riprap)	-	-	-	0.11	0.12	0.12	-	-	-	-	**0.35**
Liner Subgrade Preparation											
Scraping and Hauling - 0.25 Mile Round Trip	-	-	-	0.32	0.33	0.35	-	-	-	-	**1.01**
Excavating	-	-	-	0.15	0.16	0.17	-	-	-	-	**0.49**
Hauling Subgrade - Phase 1 - 1.0 Mile Round Trip	-	-	-	0.31	0.33	0.35	-	-	-	-	**0.99**
Spreading and Compacting Subgrade	-	-	-	0.49	0.52	0.55	-	-	-	-	**1.57**
Subgrade QA/QC	-	-	-	0.24	0.25	0.27	-	-	-	-	**0.76**
Gypsum Dewatering Facility Earthwork											
Excavating	-	-	-	0.73	-	-	-	-	-	-	**0.73**
Hauling Earth - 1.0 Mile Round Trip	-	-	-	1.53	-	-	-	-	-	-	**1.53**
Spreading and Compacting	-	-	-	1.21	-	-	-	-	-	-	**1.21**
Earthwork QA/QC	-	-	-	0.24	-	-	-	-	-	-	**0.24**

GHENT LANDFILL (PHASE I)

Capital Expenditures ($ million)	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Total
Haul Roads											
CCP Disposal On-Landfill Haul Road (60 Feet Wide)	-	-	-	-	0.61	0.05	0.05	0.05	0.05	0.06	**0.87**
CCP Disposal Off-Landfill Haul Road (60 Feet Wide)	-	-	-	0.30	1.03	-	-	-	-	-	**1.33**
Liner											
Landfill - Single Liner System	-	-	-	-	7.00	7.43	7.87	-	-	-	**22.30**
Liner System QA/QC	-	-	-	-	1.23	1.30	1.38	-	-	-	**3.90**
Leachate Collector Line	-	-	-	-	0.19	0.20	0.21	-	-	-	**0.60**
On-Landfill Leachate Trunk Line	-	-	-	-	0.08	0.08	0.09	-	-	-	**0.25**
Off-Landfill Leachate Trunk Line	-	-	-	-	0.07	-	-	-	-	-	**0.07**
Leachate Storage Pond	-	-	-	-	0.29	-	-	-	-	-	**0.29**
Leachate Pump House	-	-	-	-	0.09	-	-	-	-	-	**0.09**
Leachate Pipe Line	-	-	-	-	0.08	-	-	-	-	-	**0.08**
Underdrains - Trunk	-	-	-	-	0.17	0.18	0.19	-	-	-	**0.54**
Underdrains - Collector	-	-	-	-	0.11	0.12	0.12	-	-	-	**0.35**
Cap											
Intermediate Soil Cover	-	-	-	-	-	-	0.28	0.30	0.32	0.34	**1.24**
Cap System	-	-	-	-	-	-	0.22	0.23	0.25	0.26	**0.96**
Cap System QA/QC	-	-	-	-	-	-	0.03	0.03	0.03	0.03	**0.12**
Total	**0.46**	**3.72**	**40.73**	**57.01**	**69.65**	**13.10**	**10.44**	**0.62**	**0.65**	**0.69**	**197.07**
E.ON-US Overheads	0.02	0.13	1.43	2.00	2.44	0.46	0.37	0.02	0.02	0.02	**6.90**
Total with Overheads	**0.47**	**3.85**	**42.16**	**59.01**	**72.09**	**13.56**	**10.81**	**0.64**	**0.68**	**0.72**	**203.97**

EXHIBIT G

Revenue Requirments Summary
Gypsum Disposal at Sterling Materials

			2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Revenue Requirement													
Eligible Plant			$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 203,254,220	$ 203,969,979	$ 203,969,979	$ 248,969,979
Less Gypsum Plant			$ -	$ (14,090,000)	$ (40,060,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (98,110,000)
Revised Eligible Plant			$ 4,321,671	$ 32,388,846	$ 65,425,803	$ 124,467,356	$ 138,023,918	$ 148,831,953	$ 149,468,976	$ 150,144,220	$ 150,859,979	$ 150,859,979	$ 150,859,979
Less Accumulated Depreciation							$ (3,690,414)	$ (7,842,826)	$ (12,013,010)	$ (16,202,034)	$ (20,411,027)	$ (24,620,020)	$ (28,829,013)
Less Deferred Tax Balance							$ (528,683)	$ (2,857,926)	$ (4,921,730)	$ (6,731,945)	$ (8,301,165)	$ (9,641,200)	$ (11,289,441)
Environmental Compliance Rate Base			$ 4,321,671	$ 32,388,846	$ 65,425,803	$ 124,467,356	$ 133,804,821	$ 138,131,202	$ 132,534,236	$ 127,210,241	$ 122,147,788	$ 116,598,759	$ 110,741,525
Rate of Return			11.1%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
Assumed Tons (1.155)	1,000,000		$ 480,509	$ 3,553,056	$ 7,177,211	$ 13,654,069	$ 14,678,389	$ 15,152,993	$ 14,539,006	$ 13,954,963	$ 13,399,612	$ 12,790,884	$ 12,148,345
86.7500% Cubic yards	867,500												
Operating Expenses			$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,556
less Gypsum to On-site Landfill							$ (8,887,032)	$ (9,420,254)	$ (9,985,469)	$ (10,584,598)	$ (11,219,674)	$ (11,892,854)	$ (12,606,425)
Gypsum to Sterling	**$ 9.00**						$ 9,000,000	$ 9,540,000	$ 10,112,400	$ 10,719,144	$ 11,362,293	$ 12,044,030	$ 12,766,672
Net Operating			$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,116,276	$ 20,263,253	$ 21,479,048	$ 22,767,790	$ 24,133,858	$ 25,581,889	$ 27,116,803
Annual Depreciation							$ 3,690,414	$ 4,152,411	$ 4,170,184	$ 4,189,024	$ 4,208,993	$ 4,208,993	$ 4,208,993
Annual Property Tax Expense				$ 6,483	$ 69,718	$ 158,229	$ 266,366	$ 279,017	$ 286,798	$ 279,274	$ 271,751	$ 264,317	$ 264,317
Total OE			$ 84,800	$ 127,832	$ 198,348	$ 294,577	$ 23,073,056	$ 24,694,681	$ 25,936,030	$ 27,236,088	$ 28,614,602	$ 30,055,199	$ 31,590,112
Total E(m) Gypsum to Sterling		$ 453,492,164	$ 565,309	$ 3,680,888	$ 7,375,559	$ 13,948,646	$ 37,751,445	$ 39,847,674	$ 40,475,036	$ 41,191,051	$ 42,014,214	$ 42,846,083	$ 43,738,457
Total E(m) - Project 30 (See below)		$ 555,782,375	$ 565,309	$ 5,226,225	$ 11,769,378	$ 19,773,528	$ 44,705,239	$ 46,600,208	$ 46,976,843	$ 47,458,553	$ 48,044,547	$ 48,653,648	$ 55,312,476
Difference **PVRR**	**7.81%**	**$ (102,290,212)**	$ -	$ (1,545,337)	$ (4,393,819)	$ (5,824,882)	$ (6,953,794)	$ (6,752,534)	$ (6,501,807)	$ (6,267,502)	$ (6,030,333)	$ (5,807,565)	$ (11,574,019)
Date			12/31/2009	12/31/2010	12/31/2011	12/31/2012	12/31/2013	12/31/2014	12/31/2015	12/31/2016	12/31/2017	12/31/2018	12/31/2019

Revenue Requirments Summary
2009 Amended Plan
Project 30 Ghent Landfill Phase I
See Exhibit B

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
											Start Phase II
Revenue Requirement											$ 40,000,000
Eligible Plant	$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 203,254,220	$ 203,969,979	$ 203,969,979	$ 248,969,979
Less Gypsum Plant	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Revised Eligible Plant	$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 203,254,220	$ 203,969,979	$ 203,969,979	$ 248,969,979
Less Accumulated Depreciation					$ (5,110,443)	$ (10,744,623)	$ (16,396,576)	$ (22,067,369)	$ (27,758,131)	$ (33,448,893)	$ (40,395,155)
Less Deferred Tax Balance					$ (732,114)	$ (3,915,341)	$ (6,717,677)	$ (9,168,992)	$ (11,289,232)	$ (13,098,586)	$ (15,818,743)
Environmental Compliance Rate Base	$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 185,291,361	$ 187,281,989	$ 179,464,723	$ 172,017,859	$ 164,922,616	$ 157,422,500	$ 192,756,081
Rate of Return	11.1%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
	$ 480,509	$ 5,098,729	$ 11,571,793	$ 19,480,236	$ 20,326,462	$ 20,544,834	$ 19,687,280	$ 18,870,359	$ 18,092,011	$ 17,269,248	$ 21,145,342
Operating Expenses	$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,555.78
less Gypsum to On-site Landfill					$ -	$ -	$ -	$ -	$ -	$ -	$ -
Gypsum to Sterling					$ -	$ -	$ -	$ -	$ -	$ -	$ -
Net Operating	$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,556
Annual Depreciation					$ 5,110,443	$ 5,634,180	$ 5,651,953	$ 5,670,793	$ 5,690,762	$ 5,690,762	$ 6,946,262
Annual Property Tax Expense		$ 6,483	$ 69,718	$ 158,229	$ 266,366	$ 279,017	$ 286,798	$ 279,274	$ 271,751	$ 264,317	$ 264,317
Total OE	$ 84,800	$ 127,832	$ 198,348	$ 294,577	$ 24,380,117	$ 26,056,704	$ 27,290,868	$ 28,583,311	$ 29,953,752	$ 31,385,792	$ 34,167,134
Total E(m) Gypsum to On-site Landfill as Calculated	$ 565,309	$ 5,226,561	$ 11,770,141	$ 19,774,813	$ 44,706,579	$ 46,601,539	$ 46,978,148	$ 47,453,670	$ 48,045,763	$ 48,655,040	$ 55,312,476
Total E(m) Gypsum to On-site Landfill per KU	$ 565,309	$ 5,226,225	$ 11,769,378	$ 19,773,528	$ 44,705,239	$ 46,600,208	$ 46,976,843	$ 47,458,553	$ 48,044,547	$ 48,653,648	
Calculation Check Difference	$ -	$ 336	$ 763	$ 1,285	$ 1,340	$ 1,331	$ 1,305	$ (4,883)	$ 1,216	$ 1,392	
Site E/F Hauling cost of Ash 2.25 mile round trip					$ 2,822,723	$ 2,992,086	$ 3,171,612	$ 3,361,908	$ 3,563,623	$ 3,777,440	$ 4,004,087
Haul Road Maintenance					$ 53,529	$ 56,741	$ 60,145	$ 63,754	$ 67,579	$ 71,634	$ 75,932
Total					$ 2,876,252	$ 3,048,827	$ 3,231,757	$ 3,425,662	$ 3,631,202	$ 3,849,074	$ 4,080,018
Reduce by 50% for Site M	$ -	$ -	$ -	$ -	$ 1,438,126	$ 1,524,414	$ 1,615,878	$ 1,712,831	$ 1,815,601	$ 1,924,537	$ 2,040,009
Difference **PVRR**	**7.81%**	**$ (21,865,903)**									

Revenue Requirments Summary
Gypsum Disposal at Sterling Materials

			2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
													Start Phase II
Revenue Requirement													$ 40,000,000
Eligible Plant			$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 323,969,979	$ 353,969,979	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
Less Gypsum Plant			$ (133,110,000)	$ (133,110,000)	$ (133,110,000)	$ (133,110,000)	$ (133,110,000)	$ (173,110,000)	$ (203,110,000)	$ (209,140,021)	$ (209,140,021)	$ (209,140,021)	$ (169,140,021)
Revised Eligible Plant			$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 150,859,979	$ 190,859,979
Less Accumulated Depreciation			$ (33,038,006)	$ (37,246,999)	$ (41,455,992)	$ (45,664,985)	$ (49,873,978)	$ (54,082,972)	$ (58,291,965)	$ (62,500,958)	$ (66,709,951)	$ (70,918,944)	$ (76,243,937)
Less Deferred Tax Balance			$ (12,937,683)	$ (14,585,925)	$ (16,234,167)	$ (17,882,408)	$ (19,530,650)	$ (21,178,892)	$ (22,827,133)	$ (24,475,375)	$ (26,123,617)	$ (27,771,858)	$ (29,857,126)
Environmental Compliance Rate Base			$ 104,884,290	$ 99,027,055	$ 93,169,820	$ 87,312,585	$ 81,455,351	$ 75,598,116	$ 69,740,881	$ 63,883,646	$ 58,026,411	$ 52,169,177	$ 84,758,916
Rate of Return			10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
Assumed	Tons (1.155)	1,000,000	$ 11,505,807	$ 10,863,268	$ 10,220,729	$ 9,578,191	$ 8,935,652	$ 8,293,113	$ 7,650,575	$ 7,008,036	$ 6,365,497	$ 5,722,959	$ 9,298,053
86.7500%	Cubic yards	867,500											
Operating Expenses			$ 28,573,949	$ 30,288,386	$ 32,105,689	$ 34,032,031	$ 36,073,952	$ 38,238,390	$ 40,532,693	$ 42,964,655	$ 45,542,534	$ 48,275,086	$ 51,171,591
less Gypsum to On-site Landfill			$ (13,362,811)	$ (14,164,579)	$ (15,014,454)	$ (15,915,321)	$ (16,870,241)	$ (17,882,455)	$ (18,955,402)	$ (20,092,727)	$ (21,298,290)	$ (22,576,188)	$ (23,930,759)
Gypsum to Sterling	**$ 9.00**		$ 13,532,672	$ 14,344,633	$ 15,205,311	$ 16,117,629	$ 17,084,687	$ 18,109,768	$ 19,196,354	$ 20,348,136	$ 21,569,024	$ 22,863,165	$ 24,234,955
Net Operating			$ 28,743,811	$ 30,468,439	$ 32,296,546	$ 34,234,338	$ 36,288,399	$ 38,465,703	$ 40,773,645	$ 43,220,064	$ 45,813,267	$ 48,562,063	$ 51,475,787
Annual Depreciation			$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 4,208,993	$ 5,324,993
Annual Property Tax Expense			$ 322,630	$ 367,985	$ 367,985	$ 367,985	$ 367,985	$ 367,985	$ 419,820	$ 458,696	$ 466,510	$ 466,510	$ 466,510
Total OE			$ 33,275,434	$ 35,045,418	$ 36,873,524	$ 38,811,317	$ 40,865,377	$ 43,042,681	$ 45,402,458	$ 47,887,752	$ 50,488,770	$ 53,237,566	$ 57,267,290
Total E(m) Gypsum to Sterling		$ 453,492,164	$ 44,781,241	$ 45,908,686	$ 47,094,253	$ 48,389,508	$ 49,801,029	$ 51,335,794	$ 53,053,032	$ 54,895,788	$ 56,854,267	$ 58,960,525	$ 66,565,343
Total E(m) - Project 30 (See below)		$ 555,782,375	$ 60,594,706	$ 61,145,021	$ 61,752,847	$ 62,469,712	$ 63,302,156	$ 69,590,749	$ 74,557,268	$ 76,324,534	$ 77,376,925	$ 78,576,175	$ 79,939,378
Difference	**PVRR**	**7.81% $ (102,290,212)**	$ (15,813,466)	$ (15,236,335)	$ (14,658,594)	$ (14,080,204)	$ (13,501,127)	$ (18,254,955)	$ (21,504,236)	$ (21,428,746)	$ (20,522,658)	$ (19,615,651)	$ (13,374,035)
Date			12/31/2020	12/31/2021	12/31/2022	12/31/2023	12/31/2024	12/31/2025	12/31/2026	12/31/2027	12/31/2028	12/31/2029	12/31/2030

Revenue Requirments Summary
2009 Amended Plan
Project 30 Ghent Landfill Phase I
See Exhibit B

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
						Start Phase III					
Revenue Requirement	$ 40,000,000					$ 40,000,000	$ 30,000,000	$ 6,030,021			
Eligible Plant	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 323,969,979	$ 353,969,979	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
Less Gypsum Plant	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Revised Eligible Plant	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 283,969,979	$ 323,969,979	$ 353,969,979	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
Less Accumulated Depreciation	$ (48,317,917)	$ (56,240,679)	$ (64,163,440)	$ (72,086,202)	$ (80,008,964)	$ (89,047,726)	$ (98,923,488)	$ (108,967,487)	$ (119,011,486)	$ (129,055,485)	$ (139,099,485)
Less Deferred Tax Balance	$ (18,921,296)	$ (22,023,850)	$ (25,126,403)	$ (28,228,957)	$ (31,331,510)	$ (34,871,089)	$ (38,738,438)	$ (42,671,668)	$ (46,604,898)	$ (50,538,128)	$ (54,471,358)
Environmental Compliance Rate Base	$ 216,730,766	$ 205,705,451	$ 194,680,135	$ 183,654,820	$ 172,629,505	$ 200,051,164	$ 216,308,054	$ 208,360,845	$ 194,383,616	$ 180,406,387	$ 166,429,157
Rate of Return	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
	$ 23,775,365	$ 22,565,888	$ 21,356,411	$ 20,146,934	$ 18,937,457	$ 21,945,613	$ 23,728,993	$ 22,857,185	$ 21,323,883	$ 19,790,581	$ 18,257,279
Operating Expenses	$ 28,573,949.13	$ 30,288,386.07	$ 32,105,689.24	$ 34,032,030.59	$ 36,073,952.43	$ 38,238,389.57	$ 40,532,692.95	$ 42,964,654.53	$ 45,542,533.80	$ 48,275,085.83	$ 51,171,590.97
less Gypsum to On-site Landfill	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Gypsum to Sterling	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Net Operating	$ 28,573,949	$ 30,288,386	$ 32,105,689	$ 34,032,031	$ 36,073,952	$ 38,238,390	$ 40,532,693	$ 42,964,655	$ 45,542,534	$ 48,275,086	$ 51,171,591
Annual Depreciation	$ 7,922,762	$ 7,922,762	$ 7,922,762	$ 7,922,762	$ 7,922,762	$ 9,038,762	$ 9,875,762	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999
Annual Property Tax Expense	$ 322,630	$ 367,985	$ 367,985	$ 367,985	$ 367,985	$ 419,820	$ 458,696	$ 466,510	$ 466,510	$ 466,510	$ 466,510
Total OE	$ 36,819,341	$ 38,579,133	$ 40,396,436	$ 42,322,778	$ 44,364,700	$ 47,645,137	$ 50,828,274	$ 53,467,349	$ 56,053,043	$ 58,785,595	$ 61,682,100
Total E(m) Gypsum to On-site Landfill as Calculated	$ 60,594,706	$ 61,145,021	$ 61,752,847	$ 62,469,712	$ 63,302,156	$ 69,590,749	$ 74,557,268	$ 76,324,534	$ 77,376,925	$ 78,576,175	$ 79,939,378
Total E(m) Gypsum to On-site Landfill per KU											
Calculation Check Difference											
Site E/F Hauling cost of Ash 2.25 mile round trip	$ 4,244,332	$ 4,498,992	$ 4,768,931	$ 5,055,067	$ 5,358,371	$ 5,679,873	$ 6,020,666	$ 6,381,906	$ 6,764,820	$ 7,170,709	$ 7,600,952
Haul Road Maintenance	$ 80,488	$ 85,317	$ 90,436	$ 95,862	$ 101,614	$ 107,711	$ 114,174	$ 121,024	$ 128,285	$ 135,982	$ 144,141
Total	$ 4,324,820	$ 4,584,309	$ 4,859,367	$ 5,150,929	$ 5,459,985	$ 5,787,584	$ 6,134,839	$ 6,502,930	$ 6,893,105	$ 7,306,692	$ 7,745,093
Reduce by 50% for Site M	$ 2,162,410	$ 2,292,154	$ 2,429,684	$ 2,575,465	$ 2,729,993	$ 2,893,792	$ 3,067,420	$ 3,251,465	$ 3,446,553	$ 3,653,346	$ 3,872,547
Difference	**PVRR**	**7.81% $ (21,865,903)**									

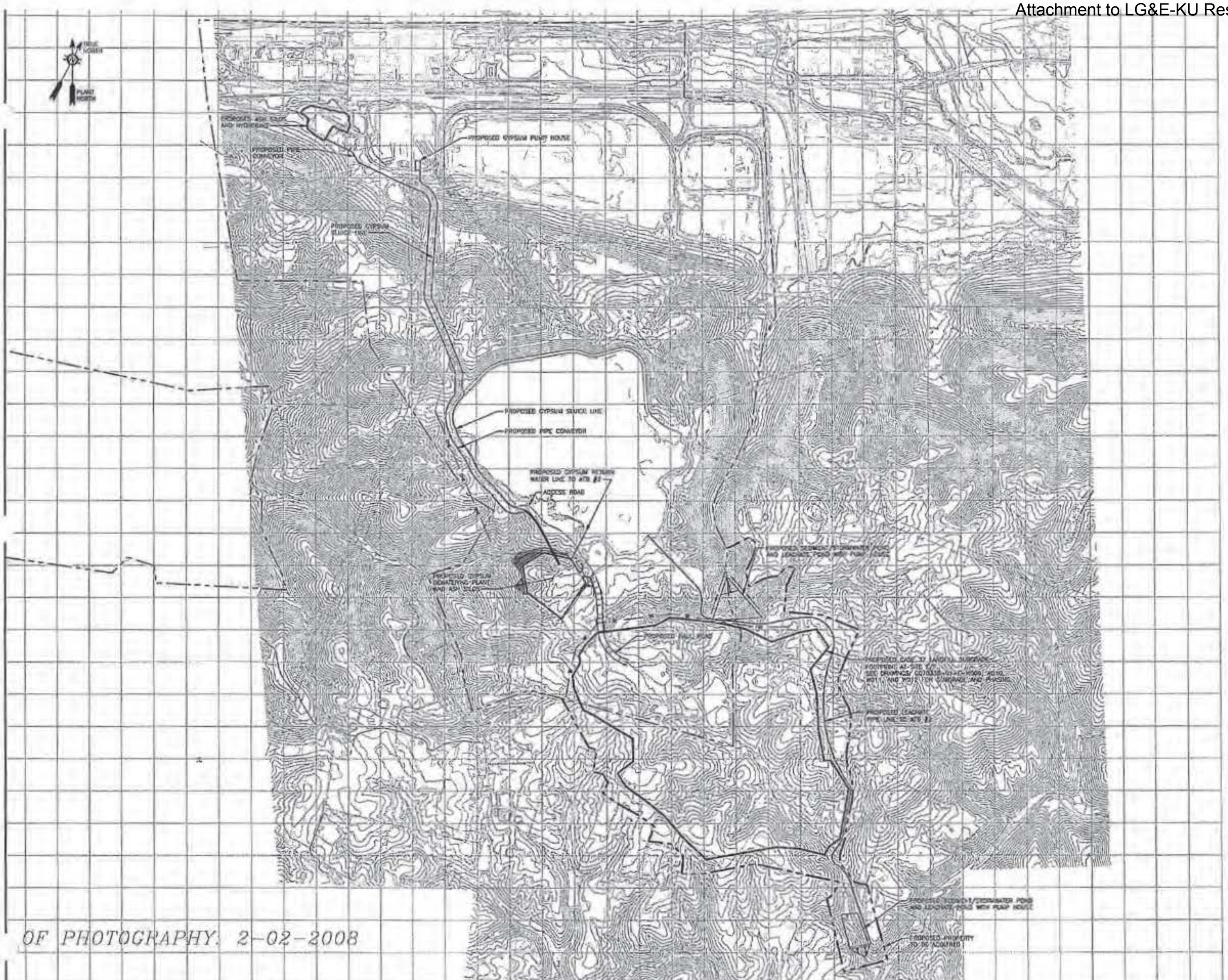
Revenue Requirments Summary
Gypsum Disposal at Sterling Materials

			2031	2032	2033	2034	2035	2036	2037	
Revenue Requirement			$ 40,000,000							
Eligible Plant			$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	
Less Gypsum Plant			$ (129,140,021)	$ (129,140,021)	$ (129,140,021)	$ (129,140,021)	$ (129,140,021)	$ (129,140,021)	$ (129,140,021)	
Revised Eligible Plant			$ 230,859,979	$ 230,859,979	$ 230,859,979	$ 230,859,979	$ 230,859,979	$ 230,859,979	$ 230,859,979	
Less Accumulated Depreciation			$ (82,684,930)	$ (89,125,923)	$ (95,566,916)	$ (102,007,909)	$ (108,448,902)	$ (114,889,895)	$ (121,330,888)	
Less Deferred Tax Balance			$ (32,379,419)	$ (34,901,711)	$ (37,424,004)	$ (39,946,297)	$ (42,468,590)	$ (44,990,883)	$ (47,513,176)	
Environmental Compliance Rate Base			$ 115,795,631	$ 106,832,345	$ 97,869,059	$ 88,905,773	$ 79,942,487	$ 70,979,202	$ 62,015,916	
Rate of Return			10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	
Assumed	Tons (1.155)	1,000,000	$ 12,702,781	$ 11,719,508	$ 10,736,236	$ 9,752,963	$ 8,769,691	$ 7,786,418	$ 6,803,146	
86.7500%	Cubic yards	867,500								
Operating Expenses			$ 54,241,886	$ 57,496,400	$ 60,946,184	$ 64,602,955	$ 68,479,132	$ 72,587,880	$ 76,943,153	
less Gypsum to On-site Landfill			$ (25,366,604)	$ (26,888,601)	$ (28,501,917)	$ (30,212,032)	$ (32,024,754)	$ (33,946,239)	$ (35,983,013)	
Gypsum to Sterling		**$ 9.00**	$ 25,689,052	$ 27,230,396	$ 28,864,219	$ 30,596,072	$ 32,431,837	$ 34,377,747	$ 36,440,412	
Net Operating			$ 54,564,334	$ 57,838,194	$ 61,308,486	$ 64,986,995	$ 68,886,215	$ 73,019,388	$ 77,400,551	
Annual Depreciation			$ 6,440,993	$ 6,440,993	$ 6,440,993	$ 6,440,993	$ 6,440,993	$ 6,440,993	$ 6,440,993	
Annual Property Tax Expense			$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	
Total OE			$ 61,471,837	$ 64,745,697	$ 68,215,989	$ 71,894,498	$ 75,793,718	$ 79,926,890	$ 84,308,054	
Total E(m) Gypsum to Sterling		$ 453,492,164	$ 74,174,618	$ 76,465,205	$ 78,952,224	$ 81,647,461	$ 84,563,408	$ 87,713,309	$ 91,111,200	$ 1,465,701,254
Total E(m) - Project 30 (See below)		$ 555,782,375	$ 81,476,372	$ 83,197,583	$ 85,114,065	$ 87,237,534	$ 89,580,409	$ 92,155,855	$ 94,977,826	$ 1,754,455,070
Difference	**PVRR**	**7.81% $ (102,290,212)**	$ (7,301,754)	$ (6,732,378)	$ (6,161,840)	$ (5,590,073)	$ (5,017,001)	$ (4,442,546)	$ (3,866,626)	$ (288,753,816)
Date			12/31/2031	12/31/2032	12/31/2033	12/31/2034	12/31/2035	12/31/2036	12/31/2037	
										$ (288,753,816)

Revenue Requirments Summary
2009 Amended Plan
Project 30 Ghent Landfill Phase I
See Exhibit B

			2031	2032	2033	2034	2035	2036	2037
Revenue Requirement									
Eligible Plant			$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
Less Gypsum Plant			$ -	$ -	$ -	$ -	$ -	$ -	$ -
Revised Eligible Plant			$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000
Less Accumulated Depreciation			$ (149,143,484)	$ (159,187,483)	$ (169,231,482)	$ (179,275,482)	$ (189,319,481)	$ (199,363,480)	$ (209,407,479)
Less Deferred Tax Balance			$ (58,404,588)	$ (62,337,818)	$ (66,271,048)	$ (70,204,279)	$ (74,137,509)	$ (78,070,739)	$ (82,003,969)
Environmental Compliance Rate Base			$ 152,451,928	$ 138,474,699	$ 124,497,469	$ 110,520,240	$ 96,543,010	$ 82,565,781	$ 68,588,552
Rate of Return			10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
			$ 16,723,976	$ 15,190,674	$ 13,657,372	$ 12,124,070	$ 10,590,768	$ 9,057,466	$ 7,524,164
Operating Expenses			$ 54,241,886.43	$ 57,496,399.62	$ 60,946,183.60	$ 64,602,954.61	$ 68,479,131.89	$ 72,587,879.80	$ 76,943,152.59
less Gypsum to On-site Landfill			$ -	$ -	$ -	$ -	$ -	$ -	$ -
Gypsum to Sterling			$ -	$ -	$ -	$ -	$ -	$ -	$ -
Net Operating			$ 54,241,886	$ 57,496,400	$ 60,946,184	$ 64,602,955	$ 68,479,132	$ 72,587,880	$ 76,943,153
Annual Depreciation			$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999
Annual Property Tax Expense			$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510
Total OE			$ 64,752,395	$ 68,006,908	$ 71,456,692	$ 75,113,463	$ 78,989,641	$ 83,098,389	$ 87,453,661
Total E(m) Gypsum to On-site Landfill as Calculated			$ 81,476,372	$ 83,197,583	$ 85,114,065	$ 87,237,534	$ 89,580,409	$ 92,155,855	$ 94,977,826
Total E(m) Gypsum to On-site Landfill per KU									
Calculation Check Difference									
Site E/F	Hauling cost of Ash 2.25 mile round trip		$ 8,057,009	$ 8,540,429	$ 9,052,855	$ 9,596,026	$ 10,171,788	$ 10,782,095	$ 11,429,021
	Haul Road Maintenance		$ 152,790	$ 161,957	$ 171,675	$ 181,975	$ 192,894	$ 204,467	$ 216,735
Total			$ 8,209,799	$ 8,702,387	$ 9,224,530	$ 9,778,002	$ 10,364,682	$ 10,986,563	$ 11,645,756
Reduce by 50% for Site M			$ 4,104,899	$ 4,351,193	$ 4,612,265	$ 4,889,001	$ 5,182,341	$ 5,493,281	$ 5,822,878
Difference	**PVRR**	**7.81% $ (21,865,903)**							

EXHIBIT H



LEGEND

- EXISTING PROPERTY LINE (APPROXIMATE)
- PROPERTY TO BE ACQUIRED (APPROXIMATE)
- EXISTING OVERHEAD ELECTRIC LINE
- RELOCATED OVERHEAD ELECTRIC LINE
- AIR LIQUIDE LINE (APPROXIMATE)
- RELOCATED AIR LIQUIDE LINE (APPROXIMATE)
- EXISTING CARROLL COUNTY WATER DISTRICT LINE (APPROXIMATE)
- RELOCATED CARROLL COUNTY WATER DISTRICT LINE (APPROXIMATE)
- DIVERSION CHANNEL

SCALE 1"=600'
600 0 600 1,200

DRAWING RELEASE RECORD

REV.	DATE	PREPARED	APPROVED	PURPOSE
A		JJC		Original Drawing Release

DRAWING RELEASE RECORD

REV.	DATE	PREPARED	APPROVED	PURPOSE

gai consultants

DRAWN: TBA	APPROVED:
CHECKED:	DATE:
	DASH NO. 001
PROJECT NO./DASH NO. 0070338-01	
DRAWING NO. W040	

SCALE 1"=600'

PROJECT NUMBER

TITLE

ASH POND AND LANDFILL PROJECT
FINAL CONCEPTUAL DESIGN
CASE 37 - OVERVIEW

Kentucky Utilities Company

From: Wilson, Stuart(/O=LGE/OU=LOUISVILLE/CN=RECIPIENTS/CN=WILSONST)
To: Farhat, Monica
CC:
BCC:
Subject: Fw: Ghent Landfill Beneficial Reuse Opportunity
Sent: 12/12/2011 07:12:38 AM -0500 (EST)
Attachments: Ghent PVRR 12-7-11.xlsx; Ghent Project 30 PVRR Table SV Option2.pdf; Ghent Project 30 PVRR Table SV Option1.pdf; Ghent Project 30 PVRR Table.pdf; Sterling Ventures Permit 11-19-2010.pdf; Form 7056.pdf;

Monica,

Please see Chuck's email. Any thoughts?

Stuart

From: Schram, Chuck
Sent: Monday, December 12, 2011 07:00 AM
To: Wilson, Stuart
Subject: FW: Ghent Landfill Beneficial Reuse Opportunity

Are you aware of this one?

From: John Walters [mailto:johnwalters@sterlingventures.com]
Sent: Saturday, December 10, 2011 5:15 PM
To: Schram, Chuck
Subject: Fwd: Ghent Landfill Beneficial Reuse Opportunity

---------- Forwarded message ----------
From: **John Walters** <johnwalters@sterlingventures.com>
Date: Sat, Dec 10, 2011 at 5:06 PM
Subject: Ghent Landfill Beneficial Reuse Opportunity
To: jeff.heun@lge-ku.com
Cc: Scott Straight <scott.straight@lge-ku.com>, Caryl Pfeiffer <caryl.pfeiffer@lge-ku.com>, john.voyles@lge-ku.com, charles.schram@lge-ku.com, Jeff Joyce <jeff.joyce@lge-ku.com>

Jeff

I understand from Scott Straight that you are evaluating the comparative PVRR cost projections for the beneficial reuse of Ghent's gypsum at Sterling Ventures' underground limestone mine. I am continuing to make minor adjustments to the comparative projections as we learn more information. Attached is the latest PVRR cost comparison.

In PSC Case No. 2009-00197, Charles Schram submitted, as part of his testimony, the PVRR analysis table that the Company would use to evaluate new beneficial reuse opportunities that could minimize disposal cost by delaying or eliminating construction of future phases. I have added three worksheets (KU PVRR Project 30, PVRR SV Option1 and PVRR SV Option2) to the attached excel file. Those worksheets (also attached as pdfs) convert my original PVRR comparison worksheet to the format that Mr. Schram indicated would be used in this situation. I apologize for not providing the beneficial reuse savings projections in this format earlier.

As I have indicated in prior emails, the comparative PVRR projections are based on certain assumptions about the timing of the remaining $160 million construction costs of Phases 2 and 3 of the landfill. I have based my capital cost timing assumptions, and the O&M costs, on the retirement studies analysis in KU's recent Environmental Surcharge case. We would welcome the opportunity to meet with you about refining, correcting and updating the construction timing and cost assumptions in the attached.

I am also attaching, for your review, the Form 7059 for that we filed in July 2010, and a copy of the resulting Beneficial Reuse Special Waste Permit for Ghent's gypsum the we received in November, 2010.

Hopefully, our existing Beneficial Reuse Permit can provide a timely alternative that can delay or eliminate near and long term landfill construction costs and equipment purchases at Ghent, and result in significant savings for KU and its' customers.

Could you possibly confirm receipt of this email, and also let me know when you believe your preliminary analysis will be completed?

I look forward to hearing from you.

John Walters

--

John W. Walters, Jr.

Sterling Ventures, LLC

376 South Broadway

Lexington, KY 40508

Phone (859) 259-9600

Fax (859) 259-9601

johnwalters@sterlingventures.com

--

John W. Walters, Jr.

Sterling Ventures, LLC

376 South Broadway

Lexington, KY 40508

Phone (859) 259-9600

Fax (859) 259-9601

johnwalters@sterlingventures.com
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DEP 7059F (1/06)

ENVIRONMENTAL AND PUBLIC PROTECTION CABINET

DEPARTMENT FOR ENVIRONMENTAL PROTECTION
DIVISION OF WASTE MANAGEMENT
14 REILLY ROAD
FRANKFORT, KY 40601
TELEPHONE NUMBER (502) 564-6716

REGISTERED PERMIT-BY-RULE
For BENEFICIAL REUSE OF SPECIAL WASTE
DEP 7059F (1/06)

GENERAL INSTRUCTIONS

1. APPLICABILITY - This registration form must be completed and submitted to the Cabinet by persons who propose to beneficially re-use special waste.

2. ASSISTANCE – Questions regarding this form may be directed in writing to the Division of Waste Management, Solid Waste Branch at the address listed above, or by calling (502) 564-6716.

3. SUBMISSION – Please type or print legibly in permanent ink. Submit the original and one (1) copy of the completed registration form to the Division of Waste Management at the address noted above. If an item is not applicable to your facility write "N/A" in the space provided.

4. LAWS AND REGULATIONS – Registrants are expected to understand and comply with all laws and regulations applicable to beneficial reuse of special waste.

DEP 7059F (1/06)

REGISTERED PERMIT-BY-RULE
BENEFICIAL REUSE OF SPECIAL WASTE

1. X New Registration - A registration number will be assigned by the Cabinet.
2. ___ This is a proposed modification of an existing registration.

Note: (If you checked item 2, complete one or both of the following two items.)
3. Agency Interest #: _____ 4. Registration #: ___-_____

Registrant Information

(The corporation, LLC, business, person, government agency, etc., that owns or operates the facility.)

5. Registrant Name: Sterling Ventures, LLC d/b/a Sterling Materials

6. Registrant Mailing Address: 376 South Broadway

7. City: Lexington 8. State: KY 9. Zip Code: 40508

10. Contact Person: Samuel A.B. Boone 11. Title: President

12. Phone #: (859) 259-9600 13. Cell #: (859) 621-4121

14. Fax #: (859) 259-9601 15. E-Mail Address: aboone@sterlingventures.com

Special Waste Facility Information

16. Facility Name: Sterling Mine 17. County: Gallatin

18. Facility Location: 100 Sierra Drive 19. E-Mail Address: _____
(For street or physical location only. Do not use P. O. Box #'s, etc.)

20. City: Verona 21. Zip Code: 41092

22. Facility Contact Person: Sam Van 23. Title: Mine Superintendent

24. Phone #: (859) 567-7300 Fax #: (859) 567-7313 Cell #: (859) 621-2142

Preparer Information

(Complete items 27 – 36 If the following information concerning the person preparing this registration is different from the contact persons named above.)

27. Preparers Name: John Walters 28. Company: Sterling Ventures, LLC

29. Mailing Address: 376 S. Broadway 30. E-mail Address: johnwalters@sterlingventures.com

31. City: Lexington 32. State: KY 33. Zip Code: 40508

34. Phone #: (859) 259-9600 35. Fax #: (859) 259-9601 36. Cell #: (859) 621-3990

DEP 7059F (1/06)

37. List the source (special waste generating facility) of the special waste to be beneficially reused. If there are multiple sources and more space is needed, use additional sheets and label as **Attachment 1.**

Special waste generator: KU Ghent Generation Station, Ghent, Carroll County, Kentucky

Special waste generator: _____

Special waste generator: _____

Special waste generator: _____

38. Provide, as **Attachment 2,** a description of the type and anticipated volume of special waste to be beneficially reused.

39. Provide as **Attachment 3,** a copy of the Toxicity Characteristic Leaching Procedure (TCLP) laboratory analysis for each type of special waste to be beneficially reused.

Note: You may omit the TCLP analysis or specific parameters of the analysis based upon your knowledge of the Special Waste, pursuant to 40 CFR 262.11. Should you elect to do this, a certified statement accepting responsibility will be required. Polychlorinated Biphenyls (PCBs) may also be omitted from the parameters listed in 401 KAR 45:100 Section 6(20)(b). Any certified statement for the omission of the TCLP or PCB data should be labeled as **Attachment 4.**

40. Provide, as **Attachment 5,** a description of how the special waste will be managed.

41. Provide, as **Attachment 6,** a description of how management and reuse of the special waste meets the environmental performance standards of 401 KAR 30:031.

42. **Attachment 7** is to be used to maintain a record of the special waste sources and amounts received. This form shall be utilized for quarterly reports submitted to the Cabinet.

DEP 7059F (1/06)

43. **Certification pursuant to 401 KAR 45:030 Section 10(4):**

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for such violations."

Signature of Registrant _____ Date _____

Name of Registrant (Typed or Printed) _____

Title _____

Subscribed and sworn to before me by _____

this the _____ day of _____, 20 _____.

Notary Public Signature _____

My Commission Expires _____

Attachment 2
Type and Volume of Special Waste

Sterling Ventures is proposing to use up to 800,000 tons per year of FGD Gypsum produced from the KU Ghent Power Station in Ghent Kentucky to fill mine voids in mined out sections of Sterling's underground limestone mine located at 100 Sierra Drive, Verona, Gallatin County, Kentucky. Gypsum is calcium sulfate dihydrate, or $CaSO4 \cdot 2H2O$, which comes primarily from two sources: (i) Mined gypsum, a common mineral found around the world in sedimentary rock formations, from which it is mined or quarried, and (ii) FGD gypsum, which is produced as a byproduct from coal-fired electric utilities and is a synthetic material essentially identical in chemical structure to mined gypsum. The underground mine has the capacity to use 1,000,000 tons per year of gypsum for as long as the mine is operating at current limestone sales volumes.

FGD Gypsum

Scrubbers are attached to coal-fired power plants to limit emissions of the sulfur which is released when coal is burned. The scrubbers spray liquid lime or limestone slurry into the flue gas path, where it reacts with sulfur in the gas to form calcium sulfite, an intermediate product with little practical value. Calcium sulfite is commonly known as "scrubber sludge."

However, newer FGD scrubbing technologies can add an extra step to the scrubbing process known as "forced oxidation" which oxidizes the calcium sulfite and produces calcium sulfate dihydrate ($CaSO4 \cdot 2H2O$), or FGD gypsum. The FGD gypsum is easily dewatered and can be marketable in the wallboard and agricultural industries.

The Ghent power plant has installed forced oxidation scrubbers on all four of its generating units with a projected FGD gypsum production of approximately 800,000 tons per year. The Ghent plant has a contract to provide the FGD Gypsum to the CertainTeed, Inc. wallboard plant located in East Carrolton, Kentucky. KU has projected CertainTeed's usage to be approximately 222,000 ton per year. Excess FGD Gypsum at Ghent is placed on the plant's Gypsum Stacking Pond. The Stacking Pond is currently listed as one of the 49 High Hazard impoundment facilities in the United States listed by the EPA in its *Coal Combustion Residues (CCR) - Surface Impoundments with High Hazard Potential Ratings* report. (See EPA530-F-09-006 June 2009 (updated August 2009)).

Because CertainTeed cannot utilize all of Ghent's FGD Gypsum, the opportunity to beneficially reuse this excess of FGD gypsum for filling Sterling's underground mine voids is an attractive alternative. In addition to providing a benefit to Sterling in filling underground voids to promote improved airflow in the mine, placing the Ghent's excess gypsum at Sterling is important to substantially reducing or eliminating the volume of excess gypsum in the gypsum stacking pond.

Attachment 3
Toxicity Characteristic Leaching Procedure Laboratory Analysis

See attached Exhibit 3-A

Exhibit 3A

Microbac Laboratories, Inc.
KENTUCKY TESTING LABORATORY DIVISION
3323 Gilmore Industrial Blvd. Louisville, KY 40213 502.962.6400 Fax: 502.962.6411
Evansville, IN 812.464.9000 | Lexington, KY 859.276.3506 | Paducah, KY 270.898.1637
Member ACIL

Chemical, Biological, Physical, Molecular, and Toxicological Services

ELECTRONIC CERTIFICATE OF ANALYSIS

1006-00672

L G & E (E ON US)
PAUL PUCKETT
EON-US / ANNUAL CCR EVALUATION

Date Reported 05/19/2010
Date Received 05/11/2010
Dates Sampled 05/04/2010-05/06/2010

Analysis	Out of Spec	Qualif	Result	Unit	Min	Max	Method	Cus Limit	PQL or Std Limit	Date	Time	Tech
Sample: 014 GHENT - UNIT 1 FLY ASH							Date & Time Sampled:			05/06/2010	@ 12:00	
....continued												
Sample: 015 GHENT - UNIT 2 FLY ASH							Date & Time Sampled:			05/06/2010	@ 12:00	
DATE EXTRACTED TCLP			COMPLETED	---			SW846 1311			05/13/10	16:00	RFV
[TCLP Metals]							SW846 6010C					
ARSENIC, TCLP			<0.20	MG/L		5.0	SW846 6010C		0.2	05/18/10	2:11	EHL
BARIUM, TCLP			0.48	MG/L		100.0	SW846 6010C		0.002	05/18/10	2:11	EHL
CADMIUM, TCLP			<0.10	MG/L		1.0	SW846 6010C		0.004	05/19/10	13:39	EHL
CHROMIUM, TCLP			<0.10	MG/L		5.0	SW846 6010C		0.01	05/19/10	13:39	EHL
LEAD, TCLP			<0.10	MG/L		5.0	SW846 6010C		0.02	05/19/10	13:39	EHL
MERCURY, TCLP			<0.10	MG/L		0.2	SW846 6010C		0.004	05/19/10	13:39	EHL
SELENIUM, TCLP			<0.20	MG/L		1.0	SW846 6010C		0.1	05/18/10	2:11	EHL
SILVER, TCLP			<0.10	MG/L		5.0	SW846 6010C		0.01	05/19/10	13:39	EHL
Sample: 016 GHENT - GYPSUM STACK							Date & Time Sampled:			05/06/2010	@ 12:00	
DATE EXTRACTED TCLP			COMPLETED	---			SW846 1311			05/13/10	16:00	RFV
[TCLP Metals]							SW846 6010C					
ARSENIC, TCLP			<0.20	MG/L		5.0	SW846 6010C		0.2	05/18/10	2:16	EHL
BARIUM, TCLP			<0.10	MG/L		100.0	SW846 6010C		0.002	05/18/10	2:16	EHL
CADMIUM, TCLP			<0.10	MG/L		1.0	SW846 6010C		0.004	05/19/10	13:43	EHL
CHROMIUM, TCLP			<0.10	MG/L		5.0	SW846 6010C		0.01	05/19/10	13:43	EHL
LEAD, TCLP			<0.10	MG/L		5.0	SW846 6010C		0.02	05/19/10	13:43	EHL
MERCURY, TCLP			<0.10	MG/L		0.2	SW846 6010C		0.004	05/19/10	13:43	EHL
SELENIUM, TCLP			<0.20	MG/L		1.0	SW846 6010C		0.1	05/18/10	2:16	EHL
SILVER, TCLP			<0.10	MG/L		5.0	SW846 6010C		0.01	05/19/10	13:43	EHL
Sample: 017 GHENT - GYPSUM							Date & Time Sampled:			05/06/2010	@ 12:00	
DATE EXTRACTED TCLP			COMPLETED	---			SW846 1311			05/13/10	16:00	RFV
[TCLP Metals]							SW846 6010C					
ARSENIC, TCLP			<0.20	MG/L		5.0	SW846 6010C		0.2	05/18/10	2:19	EHL
BARIUM, TCLP			<0.10	MG/L		100.0	SW846 6010C		0.002	05/18/10	2:19	EHL
CADMIUM, TCLP			<0.10	MG/L		1.0	SW846 6010C		0.004	05/19/10	13:46	EHL
CHROMIUM, TCLP			<0.10	MG/L		5.0	SW846 6010C		0.01	05/19/10	13:46	EHL
LEAD, TCLP			<0.10	MG/L		5.0	SW846 6010C		0.02	05/19/10	13:46	EHL
MERCURY, TCLP			<0.10	MG/L		0.2	SW846 6010C		0.004	05/19/10	13:46	EHL

Microbac®

Microbac Laboratories, Inc.

KENTUCKY TESTING LABORATORY DIVISION
3333 Gilmore Industrial Blvd. Louisville, KY 40213 502.962.6400 Fax: 502.962.6411
Evansville, IN 812.464.9000 | Lexington, KY 859.276.3506 | Paducah, KY 270.898.3637

Member ACIL

Chemical, Biological, Physical, Molecular, and Toxicological Services

ELECTRONIC CERTIFICATE OF ANALYSIS

1005-00672

LG & E (E ON US)
PAUL PUCKETT
EON-US / ANNUAL CCP EVALUATION

Date Reported 05/19/2010
Date Received 05/11/2010
Dates Sampled 05/04/2010-05/06/2010

Analysis	Out of Spec	Qualif	Result	Unit	Min	Max	Method	Qus Limit	PQL or Std Volt	Date	Time	Tech
Sample: 017 GHENT - GYPSUM								Date & Time Sampled:		05/06/2010	@ 12:00	
.....continued												
SELENIUM, TCLP			<0.10	MG/L		1.0	SW846 6010C		0.1	05/18/10	2:29	PHL
SILVER, TCLP			<0.10	MG/L		5.0	SW846 6010C		0.01	05/18/10	13:45	PHL

THIS REPORT HAS BEEN REVIEWED AND APPROVED FOR RELEASE: _____
LABORATORY DIRECTOR, KENTUCKY DIVISION

As regulatory limits change frequently, Microbac advises the recipient of this report to confirm such limits with the appropriate Federal, state, or local authorities before acting in reliance on the regulatory limits provided.
For any feedback concerning our services, please contact Andrew Clifton, the Laboratory Director at 502.962.6400. You may also contact both James Nokes, President and Robert Morgan, Chief Operating Officer at president@microbac.com.

Attachment 5
Management of Special Waste

Gypsum will be excavated from the Ghent's Gypsum Stacking Pond by excavator and loaded in tarped, tri-axel dump trucks for transportation to Sterling's mine. Sterling Venture's Verona mine produces limestone from underground operations only. It does not mine any limestone from open pits. Sterling mines from three underground levels, located in solid limestone bedrock. From a geological standpoint, the sea level elevation of the roof of the uppermost level is approximately 136 feet above sea level. The roofs of the second and third levels are approximately 28 feet above, and 149 feet below sea level, respectively. From a reference point, the lowest most level of the Ohio River adjacent to the Sterling Mine is approximately 401 feet above sea level. (see Exhibit 6C)

Once at the mine, the gypsum will be dumped directly from the dump trucks, via shaft, to the first level (the "Tyrone" seam) of the underground mine. Once underground, the gypsum will be carried by loader or conveyor to the mined out areas then stacked, pushed and compacted to fill the mine voids.

Attachment 6

Management and Reuse in compliance with 401 KAR 30:031

The following is a summary of the how the management and reuse meets each of the Sections of 401 KAR 30:031.

Section 2. Floodplains.
All gypsum will be placed in Sterling's underground mine. Gypsum will not be placed or stored above ground and therefore will have no impact on, or restrict the flow of, the 100 year floodplain.

Section 3. Endangered Species.
All gypsum will be placed in Sterling's underground mine. Gypsum will not be placed or stored above ground and therefore will have no impact on, or result in the destruction of the habitat of any threatened or endangered species.

Section 4. Surface Waters.
All gypsum will be placed in Sterling's underground mine. Gypsum will not be placed or stored above ground and therefore will have no impact on, or cause a discharge into, any waters of the Commonwealth.

Section 5. Groundwater.
All gypsum will be placed in solid bedrock in an area below the bottom level of the uppermost aquifer. Gypsum will not be placed or stored above ground and therefore will have no impact on, or cause a discharge into, any waters of the Commonwealth.

The uppermost mining level of Sterling's underground mine is located in what is known as the Tyrone seam of limestone. The Tyrone Limestone in north central Kentucky contains at least five potassium bentonites. Bentonite is a soft, low-specific-gravity, expandable clay. It is altered volcanic ash and because of its peculiar property of expanding when wet, bentonite is effective as a water sealer, especially to prevent pond leakage, and is also used in rotary drilling muds to prevent contaminating formations with drilling fluid. Drillers have labeled the two most prominent Tyrone bentonite beds the Mud Cave and Pencil Cave. The bentonite acts as an acqutiard or confining layer that will prevent any contact of the gypsum with groundwater.

Attached as Exhibit 6-A is an excerpt from the U.S. Geological Survey - Hydrologic Atlas 730-K, Orville B. Lloyd, Jr., and William L. Lyke, 1995, describing the impact of the bentonite as a barrier to groundwater contact.

The roof of the uppermost mining level is over 200 feet below the bottom of any recorded well in the area. Regional wells do not extend below the bentonite levels in the Tyrone limestone. Attached as Exhibit 6-B is a listing of all recorded water wells in the area, their depth and distance between the bottom of the well and the roof of the Tyrone mining level.

Attached as Exhibit 6-C is a cross section of the Sterling's underground mine showing the Tyrone level mine in relation to the Mud Cave and Pencil Cave bentonite seams.

Section 6. Application to Land Use.
All gypsum will be placed underground. Gypsum will not be placed or stored above ground and therefore will have no impact on land use.

Section 7. Polychlorinated Biphenals.
FGD Gypsum does not contain PCBs.

Section 8. Disease.
All gypsum will be placed underground and therefore will be automatically covered. Gypsum is an inert naturally occurring mineral. Underground placement will eliminate any human health or environmental issues. No sewage sludge or septic tank materials are pumped or stored underground at Sterling's underground mine.

Section 9. Air.
Underground storage will not involve burning of gypsum, which is not a flammable material. Underground storage approximately 400 feet below the surface will prohibit the airborne release of gypsum.

Section 10. Safety.
Neither limestone mining nor gypsum produces any explosive gases or a fire hazard. Sterling's underground mine is gated, which prohibits any type of uncontrolled public access.

Section 11. Public Nuisance.
Underground storage will eliminate any public nuisance due to blowing litter, debris or other waste.

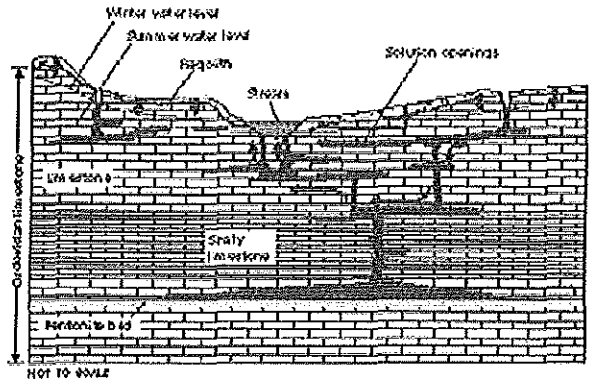
Section 12. Wetlands.
All gypsum will be placed underground. Gypsum will not be placed or stored above ground and therefore will have no impact on any wetlands

Section 13. Karst.
There are no sinkholes on or near the approximately 1,000 acres owned by Sterling. No surface water enters or exits the mine through any karst terrain or feature.

Section 14. Compliance.
Sterling will comply with all applicable requirements of KRS Chapter 224 and administrative regulation promulgated thereto.

Exhibit 6A

Confining units, such as beds of shaly limestone and bentonite, affect the depth to which freshwater circulates (fig. 97). Thin bentonite zones, which consist of clay particles that expand or swell when they become wet, form layers of low permeability that effectively impede the vertical movement of ground water. For example, in areas where the bentonite layers are continuous, the downward movement of ground water is restricted. This restriction isolates the ground water below the bentonite from the zone of dynamic circulation above the bentonite. U.S. Geological Survey - Hydrologic Atlas 730-K, Orville B. Lloyd, Jr., and William L. Lyke, 1995



Modified from Zurawski, Ann, 1978, Summary appraisals of the Nation's ground-water resources—Tennessee region: U.S. Geological Survey Professional Paper 813-L, 35 p.

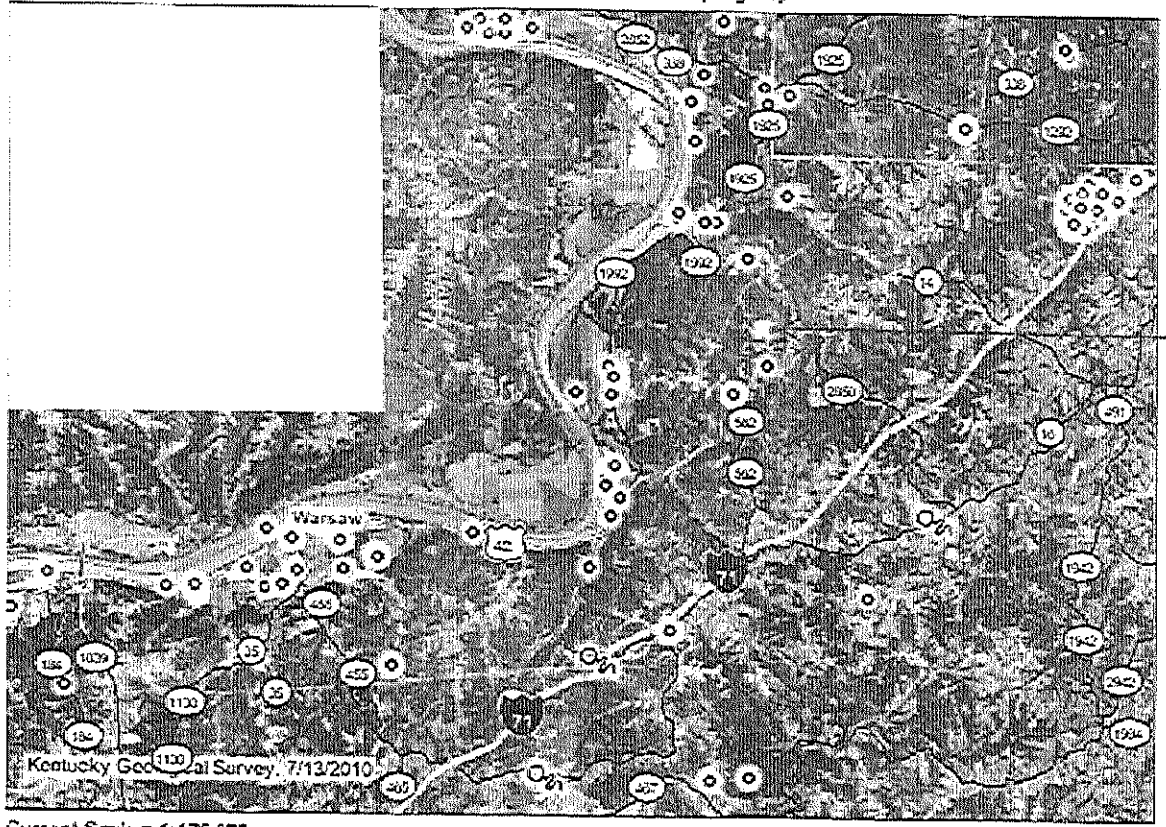
Figure 97. The limestone and dolomite aquifers contain small quantities of insoluble material and, therefore, produce only a thin layer of residuum when weathered. Recharge water percolates through the thin layer of surface material, called regolith, and subsequently moves through vertical fractures and horizontal bedding planes in the rocks. The slightly acidic water dissolves some of the limestone and dolomite as it moves to streams and other areas of discharge, such as springs and wells. The vertical movement of the recharge water and, therefore, the depth of development of solution openings, are restricted by zones of low permeability.

Kentucky Groundwater Data Repository
Kentucky Geological Survey
Water Well and Spring Location Map

Note: please disable popup blocking software for full functionality.

KGS Home > Maps, Pubs, & Data > Groundwater Info > Water Well and Spring Map

Search Criteria:
no search criteria



Sterling Mine

Current Scale = 1:175,972
Note: all wells and springs are displayed at scales below 1:100,000

Change Map Scale: choose a map scale

Change Basemap (background): color imagery (lfsa)

Change Map Size: half pg (6.8 x 4.7 in) | full pg (6.8 x 9.4 in)
TIP: to print map to scale, be sure to "File --> Print Preview..." and print at 100% scaling.

Overview Map:

Map Tools:

zoom in	zoom out	zoom full
zoom last	pan	get coords

Move Map:

Other Tools:

zoom to a location

KY-MAPS

Bookmark Map

EXHIBIT 6B

AKGWA NUMBER	lat27	lon27	Quadrangle	County	Construction Date	Primary Use	Surface Elevation	Total Depth	Bottom Elevation	Delta to Mine Roof	Owner	Owner Business	Regulatory Program
210	38.77528	-84.8131	Patriot	Gallatin	3/12/1987	DOMESTIC - SINGLE HOUSEHOLD	480	96	384	248	Wessells Constru		
950	38.81611	-84.8061	Patriot	Gallatin	6/22/1987	DOMESTIC - SINGLE HOUSEHOLD	510	99	411	275	Donlin		
2070	38.7525	-84.8722	Patriot	Gallatin	1/1/1900	DOMESTIC - SINGLE HOUSEHOLD	570				Hayton		
2070	38.7525	-84.8722	Patriot	Gallatin	1/1/1900	DOMESTIC - SINGLE HOUSEHOLD	570				Hayton		
2070	38.7525	-84.8722	Patriot	Gallatin	2/28/1986	DOMESTIC - SINGLE HOUSEHOLD	570	90	480	344	Hayton		
2070	38.7525	-84.8722	Patriot	Gallatin	2/28/1986	DOMESTIC - SINGLE HOUSEHOLD	570	90	480	344	Hayton		
2071	38.7975	-84.8078	Patriot	Gallatin	4/7/1986	DOMESTIC - SINGLE HOUSEHOLD	470	78	392	256	Wilker / McIntos		
2072	38.79167	-84.8039	Patriot	Gallatin	4/22/1986	DOMESTIC - SINGLE HOUSEHOLD	460	57	403	267	Perry		
3030	38.82306	-84.7594	Patriot	Gallatin	8/13/1985	DOMESTIC - SINGLE HOUSEHOLD	600	100	500	364	Whalen		
3885	38.82278	-84.8069	Patriot	Gallatin	7/30/1987	DOMESTIC - SINGLE HOUSEHOLD	524	142	382	246	Sproul		
6426	38.79722	-84.8072	Patriot	Gallatin	3/28/1988	DOMESTIC - SINGLE HOUSEHOLD	475	50	425	289	Hudepohl		
6427	38.775	-84.9003	Florence	Gallatin	8/31/1988	INDUSTRIAL - GENERAL	485	92	393	257		Irving Materials Inc	
6429	38.7875	-84.8064	Patriot	Gallatin	5/16/1989	DOMESTIC - SINGLE HOUSEHOLD	475	65	410	274	Heil		
7861	38.87556	-84.7808	Rising Sun	Boone	10/8/1990	DOMESTIC - SINGLE HOUSEHOLD	495	70	425	289	Ralston		
8554	38.79639	-84.8078	Patriot	Gallatin	10/29/1987	DOMESTIC - SINGLE HOUSEHOLD	470	93	377	241	Schwab		
10409	38.75417	-84.9117	Florence	Gallatin	1/22/1993	DOMESTIC - SINGLE HOUSEHOLD	550	83	467	331	Fender		
14147	38.88472	-84.7817	Rising Sun	Boone	12/13/1988	DOMESTIC - SINGLE HOUSEHOLD	530	86	444	308	Wood		
14148	38.88472	-84.7817	Rising Sun	Boone	12/14/1988	DOMESTIC - SINGLE HOUSEHOLD	430	93	337	201	Wood		
20278	38.78389	-84.8475	Patriot	Gallatin	8/18/1986	DOMESTIC - SINGLE HOUSEHOLD	470	80	390	254	Boschert		
20583	38.88778	-84.7597	Rising Sun	Boone	1/1/1900		550				Waljih		
21565	38.76806	-84.7294	Verona	Grant	10/3/1986	DOMESTIC - SINGLE HOUSEHOLD	710	80	630	494	Ellis		
21577	38.88389	-84.7586	Rising Sun	Boone	6/5/1994	DOMESTIC - SINGLE HOUSEHOLD	520	80	440	304	Wilbur		
27010	38.8575	-84.7864	Patriot	Boone	6/8/1992	DOMESTIC - SINGLE HOUSEHOLD	477	56	421	285	Fred		
29603	38.77078	-84.9396	Florence	Gallatin	1/1/1900	PUBLIC - TRANSIENT, NON-COMMUNITY	460				Loewendick	Rivers Edge Campground	
34428	38.87778	-84.6744	Union	Boone	7/20/1993		810	63	747	611	Vaske		
34436	38.84806	-84.765	Patriot	Boone	1/20/1987	DOMESTIC - SINGLE HOUSEHOLD	495	64	431	295	Gilliland		
34438	38.90361	-84.7714	Rising Sun	Boone	12/10/1986	DOMESTIC - SINGLE HOUSEHOLD	600	100	500	364	Kurkel		
34474	38.89556	-84.6681	Union	Boone	4/23/1993		810	83	727	591	Allen		
34475	38.89694	-84.6694	Union	Boone	12/4/1992	DOMESTIC - SINGLE HOUSEHOLD	820	103	717	581	McDaniel		
37305	38.78611	-84.8903	Florence	Gallatin	10/1/1994	HEAT PUMP - OPEN LOOP	495	94	401	265		Gallatin County Schools	
37311	38.76583	-84.9856	Florence	Gallatin	1/19/1995	INDUSTRIAL - GENERAL	470	91	379	243		Steel Technologies Inc	
37376	38.78222	-84.9017	Florence	Gallatin	1/1/1930	PUBLIC - COMMUNITY	491	136	355	219		Warsaw Water Works	Drinking Water
37377	38.78262	-84.9017	Florence	Gallatin	1/1/1930	PUBLIC - COMMUNITY	491	96	395	259		Warsaw Water Works	Drinking Water
37378	38.77417	-84.8856	Florence	Gallatin	1/1/1967	AGRICULTURE - LIVESTOCK WATERING	505	78	427	291	Smith		
37400	38.77861	-84.8778	Florence	Gallatin	4/27/1995		500				Oldendick	Sugar Bay Golf Inc	
39222	38.77889	-84.8764	Florence	Gallatin	1/1/1965		503				Oldendick	Sugar Bay Golf Inc	
48660	38.77528	-84.8867	Florence	Gallatin	1/1/1900	DOMESTIC - SINGLE HOUSEHOLD	510				Beall		
49372	38.78583	-84.8931	Florence	Gallatin	11/1/1999	HEAT PUMP - OPEN LOOP	495					Gallatin County Schools	
49377	38.77063	-84.9102	Florence	Gallatin	2/28/2000	PUBLIC - COMMUNITY	500					Gallatin County Water District	Drinking Water
51920	38.89969	-84.7986	Rising Sun	Boone	1/1/1974	PUBLIC - TRANSIENT, NON-COMMUNITY	470	9	461	325		Camp Turn About	
55811	38.85639	-84.7742	Patriot	Boone	4/19/2002	DOMESTIC - SINGLE HOUSEHOLD	490	70	420	284		Big Bone Marina	
58332	38.85639	-84.7775	Patriot	Boone	5/1/2002	DOMESTIC - SINGLE HOUSEHOLD	460	63	397	261		Big Bone Marina	
58338	38.89111	-84.7776	Rising Sun	Boone	1/23/2002	DOMESTIC - SINGLE HOUSEHOLD	605	80	525	389	Parker		
65141	38.82028	-84.8053	Patriot	Gallatin	1/1/1900	INDUSTRIAL - GENERAL	523					Nugent Sand Co - Warsaw Plant	
40004237	38.72534	-84.7774	Glencoe	Grant		DOMESTIC - SINGLE HOUSEHOLD							
40004241	38.78173	-84.8874	Florence	Gallatin		UNKNOWN	475						
40004243	38.79923	-84.8049	Patriot IN	Gallatin		DOMESTIC - SINGLE HOUSEHOLD		140					
40004245	38.81673	-84.8169	Patriot IN	Gallatin		DOMESTIC - SINGLE HOUSEHOLD		101					
40005375	38.77145	-84.9049	Florence	Gallatin		UNKNOWN	515						
40005376	38.77423	-84.9747	Florence	Gallatin		UNKNOWN	455						
40005378	38.78257	-84.9019	Florence	Gallatin		PUBLIC	490	140	350	214			
40005886	38.72618	-84.7655	Glencoe	Grant		UNKNOWN							

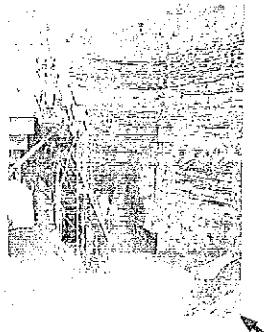
AKGWA NUMBER	lat27	lon27	Quadrangle	County	Construction Date	Primary Use	Surface Elevation	Total Depth	Bottom Elevation	Delta to Mine Roof	Owner	Owner Business	Regulatory Program
40005892	38.76951	-84.9305	Florence	Gallatin		DOMESTIC - SINGLE HOUSEHOLD		55					
40005893	38.76951	-84.9305	Florence	Gallatin		UNKNOWN	460						
40005894	38.77395	-84.9747	Florence	Gallatin		DOMESTIC - SINGLE HOUSEHOLD		58					
40005895	38.85867	-84.7858	Patriot IN	Boone		DOMESTIC - SINGLE HOUSEHOLD	490	29	461	325			
40006041	38.78173	-84.8874	Florence	Gallatin		DOMESTIC - SINGLE HOUSEHOLD		40					
40006325	38.77812	-84.8761	Florence	Gallatin		UNKNOWN	510		510	374			
40006326	38.78173	-84.8874	Florence	Gallatin		UNKNOWN	475		475	339			
40006327	38.79479	-84.8077	Patriot IN	Gallatin		DOMESTIC - SINGLE HOUSEHOLD		60					
40006328	38.79923	-84.8049	Patriot	Gallatin		UNKNOWN	490						
40006757	38.72534	-84.7774	Glencoe	Grant		UNKNOWN							
40006762	38.77145	-84.9049	Florence	Gallatin		DOMESTIC - SINGLE HOUSEHOLD		146					
40006763	38.77423	-84.9747	Florence	Gallatin		DOMESTIC - SINGLE HOUSEHOLD		87					
40006764	38.86256	-84.7527	Patriot IN	Boone		PUBLIC							
40007580	38.72618	-84.7655	Glencoe	Grant		DOMESTIC - SINGLE HOUSEHOLD							
40007585	38.74757	-84.9699	Sanders	Gallatin		DOMESTIC - SINGLE HOUSEHOLD							
40007586	38.77395	-84.9747	Florence	Gallatin		UNKNOWN	453						
40007588	38.77812	-84.8761	Florence	Gallatin		DOMESTIC - SINGLE HOUSEHOLD		80					
80003234	38.8625	-84.6614	Verona	Boone	7/22/1993	ITORING WELL - WATER LEVEL MONITORING	800	18	782	646		Bavarian Trucking Co Inc	Solid Waste
80003235	38.86139	-84.6572	Verona	Boone	7/14/1993	ITORING WELL - WATER LEVEL MONITORING	800	20.7	779.3	643.3		Bavarian Trucking Co Inc	Solid Waste
80003236	38.86083	-84.6592	Verona	Boone	7/10/1993	ITORING WELL - WATER LEVEL MONITORING	780	17.5	762.5	626.5		Bavarian Trucking Co Inc	Solid Waste
80003239	38.85917	-84.6619	Verona	Boone	7/22/1993	MONITORING WELL - AMBIENT MONITORING	740	18.2	721.8	585.8		Bavarian Trucking Co Inc	Solid Waste
80003240	38.85944	-84.6628	Verona	Boone	7/10/1993	MONITORING WELL - AMBIENT MONITORING	720	27	693	557		Bavarian Trucking Co Inc	Solid Waste
80003241	38.85972	-84.6639	Verona	Boone	7/10/1993	MONITORING WELL - AMBIENT MONITORING	720	22.9	697.1	561.1		Bavarian Trucking Co Inc	Solid Waste
80003242	38.85917	-84.665	Verona	Boone	7/21/1993	MONITORING WELL - AMBIENT MONITORING	720	18.4	701.6	565.6		Bavarian Trucking Co Inc	Solid Waste
80003243	38.85972	-84.6667	Verona	Boone	7/21/1993	MONITORING WELL - AMBIENT MONITORING	700	18.1	681.9	545.9		Bavarian Trucking Co Inc	Solid Waste
80003244	38.85944	-84.6678	Verona	Boone	7/20/1993	MONITORING WELL - AMBIENT MONITORING	720	18.9	701.1	565.1		Bavarian Trucking Co Inc	Solid Waste
80003245	38.85556	-84.6678	Verona	Boone	12/30/2000	MONITORING WELL - AMBIENT MONITORING	800	18.1	781.9	645.9		Bavarian Trucking Co Inc	Solid Waste
80003245	38.85556	-84.6678	Verona	Boone	12/30/2000	MONITORING WELL - AMBIENT MONITORING	800	18.1	781.9	645.9		Bavarian Trucking Co Inc	Solid Waste
80003245	38.85556	-84.6678	Verona	Boone	7/14/1993	MONITORING WELL - AMBIENT MONITORING	800	18.1	781.9	645.9		Bavarian Trucking Co Inc	Solid Waste
80003245	38.85556	-84.6678	Verona	Boone	7/14/1993	MONITORING WELL - AMBIENT MONITORING	800	18.1	781.9	645.9		Bavarian Trucking Co Inc	Solid Waste
80003245	38.85556	-84.6678	Verona	Boone	12/30/2000	MONITORING WELL - AMBIENT MONITORING	800	18.1	781.9	645.9		Bavarian Trucking Co Inc	Solid Waste
80003245	38.85556	-84.6678	Verona	Boone	12/30/2000	MONITORING WELL - AMBIENT MONITORING	800	18.1	781.9	645.9		Bavarian Trucking Co Inc	Solid Waste
80003245	38.85556	-84.6678	Verona	Boone	7/14/1993	MONITORING WELL - AMBIENT MONITORING	800	18.1	781.9	645.9		Bavarian Trucking Co Inc	Solid Waste
80003245	38.85556	-84.6678	Verona	Boone	7/14/1993	MONITORING WELL - AMBIENT MONITORING	800	18.1	781.9	645.9		Bavarian Trucking Co Inc	Solid Waste
80003246	38.86	-84.6642	Verona	Boone	7/27/1993	MONITORING WELL - AMBIENT MONITORING	720	18.3	701.7	565.7		Bavarian Trucking Co Inc	Solid Waste
80011401	38.86139	-84.6542	Verona	Boone	1/1/1900	MONITORING WELL - AMBIENT MONITORING	847.49					Bavarian Trucking Co Inc	Solid Waste
80011402	38.86167	-84.6539	Verona	Boone	1/1/1900	MONITORING WELL - AMBIENT MONITORING	847.92					Bavarian Trucking Co Inc	Solid Waste
80011403	38.85778	-84.6592	Verona	Boone	1/1/1900	MONITORING WELL - AMBIENT MONITORING	833.59					Bavarian Trucking Co Inc	Solid Waste
80011404	38.85806	-84.6589	Verona	Boone	1/1/1900	MONITORING WELL - AMBIENT MONITORING	833.65					Bavarian Trucking Co Inc	Solid Waste
80011405	38.85583	-84.6619	Verona	Boone	1/1/1900	MONITORING WELL - AMBIENT MONITORING	834.72					Bavarian Trucking Co Inc	Solid Waste
80011406	38.855	-84.6639	Verona	Boone	1/1/1900	MONITORING WELL - AMBIENT MONITORING	816.7					Bavarian Trucking Co Inc	Solid Waste
80011407	38.85611	-84.6672	Verona	Boone	1/1/1900	MONITORING WELL - AMBIENT MONITORING	800.5					Bavarian Trucking Co Inc	Solid Waste
80011408	38.85861	-84.67	Verona	Boone	1/1/1900	MONITORING WELL - AMBIENT MONITORING	766.27					Bavarian Trucking Co Inc	Solid Waste
80011409	38.86	-84.6692	Verona	Boone	1/1/1900	MONITORING WELL - AMBIENT MONITORING	767.85					Bavarian Trucking Co Inc	Solid Waste
80011410	38.86222	-84.6689	Verona	Boone	1/1/1900	MONITORING WELL - AMBIENT MONITORING	641.24					Bavarian Trucking Co Inc	Solid Waste
80011411	38.86222	-84.6669	Verona	Boone	1/1/1900	MONITORING WELL - AMBIENT MONITORING	643.85					Bavarian Trucking Co Inc	Solid Waste
80011412	38.86222	-84.6681	Verona	Boone	1/1/1900	MONITORING WELL - AMBIENT MONITORING	604.9					Bavarian Trucking Co Inc	Solid Waste
80011413	38.8625	-84.6622	Verona	Boone	1/1/1900	MONITORING WELL - AMBIENT MONITORING	828.1					Bavarian Trucking Co Inc	Solid Waste
80011414	38.8625	-84.6622	Verona	Boone	1/1/1900	MONITORING WELL - AMBIENT MONITORING	828.01					Bavarian Trucking Co Inc	Solid Waste
80011415	38.86417	-84.6594	Verona	Boone	1/1/1900	MONITORING WELL - AMBIENT MONITORING	780.48					Bavarian Trucking Co Inc	Solid Waste
80011416	38.86417	-84.6589	Verona	Boone	1/1/1900	MONITORING WELL - AMBIENT MONITORING	780.26					Bavarian Trucking Co Inc	Solid Waste
80011417	38.86556	-84.6625	Verona	Boone	1/1/1900	MONITORING WELL - AMBIENT MONITORING	784.79					Bavarian Trucking Co Inc	Solid Waste

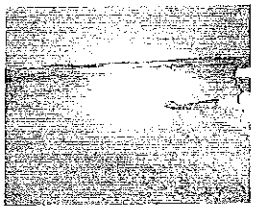
AKGWA NUMBER	lat27	lon27	Quadrangle	County	Construction Date	Primary Use	Surface Elevation	Total Depth	Bottom Elevation	Delta to Mine Roof	Owner	Owner Business	Regulatory Program
80011418	38.86361	-84.6642	Verona	Boone	1/1/1900	MONITORING WELL - AMBIENT MONITORING	762.46					Bavarian Trucking Co Inc	Solid Waste
80011419	38.86361	-84.6583	Verona	Boone	1/1/1900	MONITORING WELL - AMBIENT MONITORING	784.17					Bavarian Trucking Co Inc	Solid Waste
80012127	38.90417	-84.8358	Rising Sun	Boone	11/10/1980	MONITORING WELL - AMBIENT MONITORING	530	86	444	308		Cincinnati Gas & Electric	Solid Waste
80012127	38.90417	-84.8358	Rising Sun	Boone	11/10/1980	MONITORING WELL - AMBIENT MONITORING	530	86	444	308		Duke Energy Kentucky Inc	Solid Waste
80012133	38.90083	-84.8483	Rising Sun	Boone	11/26/1980	MONITORING WELL - AMBIENT MONITORING	475	57	418	282		Cincinnati Gas & Electric	Solid Waste
80012133	38.90083	-84.8483	Rising Sun	Boone	11/26/1980	MONITORING WELL - AMBIENT MONITORING	475	57	418	282		Duke Energy Kentucky Inc	Solid Waste
80012134	38.90083	-84.8411	Rising Sun	Boone	11/13/1980	MONITORING WELL - AMBIENT MONITORING	475	108	367	231		Cincinnati Gas & Electric	Solid Waste
80012134	38.90083	-84.8411	Rising Sun	Boone	11/13/1980	MONITORING WELL - AMBIENT MONITORING	475	108	367	231		Duke Energy Kentucky Inc	Solid Waste
80012135	38.90111	-84.8361	Rising Sun	Boone	3/28/1991	MONITORING WELL - AMBIENT MONITORING	475	33	442	306		Cincinnati Gas & Electric	Solid Waste
80012135	38.90111	-84.8361	Rising Sun	Boone	3/28/1991	MONITORING WELL - AMBIENT MONITORING	475	33	442	306		Duke Energy Kentucky Inc	Solid Waste
80012488	38.81611	-84.7694	Patriot	Gallatin	4/20/1994	MONITORING WELL - AMBIENT MONITORING	680	18	662	526		Old Starlite Tavern	UST
80012489	38.81611	-84.7694	Patriot	Gallatin	4/20/1994	MONITORING WELL - AMBIENT MONITORING	680	15	665	529		Old Starlite Tavern	UST
80012490	38.81611	-84.7694	Patriot	Gallatin	4/20/1994	MONITORING WELL - AMBIENT MONITORING	680	8.5	671.5	535.5		Old Starlite Tavern	UST
80026034	38.85972	-84.6603	Verona	Boone	5/8/1995	MONITORING WELL - AMBIENT MONITORING	759.34	16	743.34	607.34		Bavarian Trucking Co Inc	Solid Waste
80026035	38.86	-84.665	Verona	Boone	5/10/1995	MONITORING WELL - AMBIENT MONITORING	723.22	16.3	706.92	570.92		Bavarian Trucking Co Inc	Solid Waste
80026544	38.90278	-84.8417	Rising Sun	Boone	11/1/1993	MONITORING WELL - AMBIENT MONITORING	540	80	460	324		Cincinnati Gas & Electric	Solid Waste
80026544	38.90278	-84.8417	Rising Sun	Boone	11/1/1993	MONITORING WELL - AMBIENT MONITORING	540	80	460	324		Duke Energy Kentucky Inc	Solid Waste
80026545	38.90056	-84.8419	Rising Sun	Boone	10/13/1995	MONITORING WELL - AMBIENT MONITORING	475	41	434	298		Cincinnati Gas & Electric	Solid Waste
80026545	38.90056	-84.8419	Rising Sun	Boone	10/13/1995	MONITORING WELL - AMBIENT MONITORING	475	41	434	298		Duke Energy Kentucky Inc	Solid Waste
80026547	38.90417	-84.8444	Rising Sun	Boone	10/17/1995	MONITORING WELL - AMBIENT MONITORING	520	80.5	439.5	303.5		Cincinnati Gas & Electric	Solid Waste
80026547	38.90417	-84.8444	Rising Sun	Boone	10/17/1995	MONITORING WELL - AMBIENT MONITORING	520	80.5	439.5	303.5		Duke Energy Kentucky Inc	Solid Waste
80026549	38.90194	-84.8292	Rising Sun	Boone	10/18/1995	MONITORING WELL - AMBIENT MONITORING	470	30.5	439.5	303.5		Cincinnati Gas & Electric	Solid Waste
80026549	38.90194	-84.8292	Rising Sun	Boone	10/18/1995	MONITORING WELL - AMBIENT MONITORING	470	30.5	439.5	303.5		Duke Energy Kentucky Inc	Solid Waste
80029573	38.90121	-84.8476	Rising Sun	Boone	11/30/2005	MONITORING WELL - AMBIENT MONITORING		120				Cincinnati Gas & Electric	Solid Waste
80029573	38.90121	-84.8476	Rising Sun	Boone	11/30/2005	MONITORING WELL - AMBIENT MONITORING		120				Duke Energy Kentucky Inc	Solid Waste
80029577	38.902	-84.8484	Rising Sun	Boone	12/2/2005	MONITORING WELL - AMBIENT MONITORING		120				Cincinnati Gas & Electric	Solid Waste
80029577	38.902	-84.8484	Rising Sun	Boone	12/2/2005	MONITORING WELL - AMBIENT MONITORING		120				Duke Energy Kentucky Inc	Solid Waste
80029864	38.74278	-84.8358	Glencoe	Gallatin	5/29/1996	MONITORING WELL - AMBIENT MONITORING	680	7.5	672.5	536.5		Glencoe Carry-out	UST
80029865	38.74278	-84.8358	Glencoe	Gallatin	5/29/1996	MONITORING WELL - AMBIENT MONITORING	680	12	668	532		Glencoe Carry-out	UST
80029872	38.74278	-84.8358	Glencoe	Gallatin	6/7/1996	MONITORING WELL - AMBIENT MONITORING	680	15	665	529		Glencoe Carry-out	UST
80029873	38.74278	-84.8358	Glencoe	Gallatin	6/7/1996	MONITORING WELL - AMBIENT MONITORING	680	13	667	531		Glencoe Carry-out	UST
80029874	38.74278	-84.8358	Glencoe	Gallatin	6/7/1996	MONITORING WELL - AMBIENT MONITORING	680	23	657	521		Glencoe Carry-out	UST
80029875	38.74278	-84.8358	Glencoe	Gallatin	6/7/1996	MONITORING WELL - AMBIENT MONITORING	680	30	650	514		Glencoe Carry-out	UST
80030354	38.74278	-84.8358	Glencoe	Gallatin	6/19/1996	MONITORING WELL - AMBIENT MONITORING	680	30	650	514		Glencoe Carry-out	UST
80030355	38.74278	-84.8358	Glencoe	Gallatin	6/19/1996	MONITORING WELL - AMBIENT MONITORING	680	18	662	526		Glencoe Carry-out	UST
80030356	38.74278	-84.8358	Glencoe	Gallatin	6/20/1996	MONITORING WELL - AMBIENT MONITORING	680	43	637	501		Glencoe Carry-out	UST
80030955	38.74222	-84.8347	Glencoe	Gallatin	9/4/1996	MONITORING WELL - AMBIENT MONITORING	690	25	665	529		Glencoe Carry-out	UST
80030956	38.74222	-84.8347	Glencoe	Gallatin	9/4/1996	MONITORING WELL - AMBIENT MONITORING	690	25	665	529		Glencoe Carry-out	UST
80032432	38.86667	-84.6483	Verona	Boone	7/12/1999	MONITORING WELL - AMBIENT MONITORING	840	23.7	816.3	680.3		Bavarian Trucking Co Inc	Solid Waste
80032433	38.86667	-84.6483	Verona	Boone	7/12/1999	MONITORING WELL - AMBIENT MONITORING	831	30.5	800.5	664.5		Bavarian Trucking Co Inc	Solid Waste
80035870	38.74194	-84.8347	Glencoe	Gallatin	11/9/1998	MONITORING WELL - AMBIENT MONITORING	700	30.5	669.5	533.5		Glencoe Carry-out	UST
80035879	38.74222	-84.8347	Glencoe	Gallatin	11/9/1998	MONITORING WELL - AMBIENT MONITORING	690	6	684	548		Glencoe Carry-out	UST
80035880	38.74222	-84.8347	Glencoe	Gallatin	11/9/1998	MONITORING WELL - AMBIENT MONITORING	690	7	683	547		Glencoe Carry-out	UST
80037728	38.88611	-84.7522	Rising Sun	Boone	7/16/2004	MONITORING WELL - AMBIENT MONITORING	460					Kentucky State Parks	
80038750	38.74278	-84.8358	Glencoe	Gallatin	1/12/2000	MONITORING WELL - AMBIENT MONITORING	680	20.2	659.8	523.8		Glencoe Carry-out	UST
80039695	38.77111	-84.9311	Florence	Gallatin	5/24/2000	MONITORING WELL - AMBIENT MONITORING	460	15.5	444.5	308.5		Dans Marina	UST
80039696	38.77111	-84.9311	Florence	Gallatin	5/24/2000	MONITORING WELL - AMBIENT MONITORING	460	15.5	444.5	308.5		Dans Marina	UST
80039697	38.77111	-84.9311	Florence	Gallatin	5/24/2000	MONITORING WELL - AMBIENT MONITORING	460	15.5	444.5	308.5		Dans Marina	UST
80040053	38.77556	-84.9156	Florence	Gallatin	9/29/2000	MONITORING WELL - AMBIENT MONITORING	490	139	351	215		Warsaw Water Works	
80040054	38.78444	-84.9092	Florence	Gallatin	9/29/2000	MONITORING WELL - AMBIENT MONITORING	480	117	363	227		Warsaw Water Works	
80043988	38.74278	-84.8358	Glencoe	Carroll	10/29/2001	MONITORING WELL - AMBIENT MONITORING	680	25	655	519		Glencoe Carry-out	UST
80044011	38.87861	-84.6994	Union	Boone	12/4/2001	MONITORING WELL - AMBIENT MONITORING	740	6.5	733.5	597.5		Matracia & Matracia Partnershi	UST

AKGWA NUMBER	lat27	lon27	Quadrangle	County	Construction Date	Primary Use	Surface Elevation	Total Depth	Bottom Elevation	Delta to Mine Roof	Owner	Owner Business	Regulatory Program
80044012	38.87861	-84.6994	Union	Boone	12/4/2001	MONITORING WELL - AMBIENT MONITORING	740	10.2	729.8	593.8		Matracia & Matracia Partnershi	UST
80044013	38.87861	-84.6994	Union	Boone	12/4/2001	MONITORING WELL - AMBIENT MONITORING	740	9.3	730.7	594.7		Matracia & Matracia Partnershi	UST
80044014	38.87861	-84.6994	Union	Boone	12/4/2001	MONITORING WELL - AMBIENT MONITORING	740	9	731	595		Matracia & Matracia Partnershi	UST
80049181	38.76056	-84.7889	Patriot	Gallatin	5/4/2004	MONITORING WELL - AMBIENT MONITORING	850					Napoleon Grocery	UST
80049182	38.76056	-84.7889	Patriot	Gallatin	5/3/2004	MONITORING WELL - AMBIENT MONITORING	850					Napoleon Grocery	UST
80049185	38.76056	-84.7889	Patriot	Gallatin	5/3/2004	MONITORING WELL - AMBIENT MONITORING	850					Napoleon Grocery	UST
80049186	38.76056	-84.7889	Patriot	Gallatin	5/4/2004	MONITORING WELL - AMBIENT MONITORING	850					Napoleon Grocery	UST
80049425	38.87861	-84.6994	Union	Boone	1/5/2004	MONITORING WELL - AMBIENT MONITORING	740	6	734	598		Matracia & Matracia Partnershi	UST
80049426	38.87861	-84.6994	Union	Boone	1/5/2004	MONITORING WELL - AMBIENT MONITORING	740	8	732	596		Matracia & Matracia Partnershi	UST
80049427	38.87861	-84.6994	Union	Boone	1/5/2004	MONITORING WELL - AMBIENT MONITORING	740	8.5	731.5	595.5		Matracia & Matracia Partnershi	UST
80049428	38.87861	-84.6994	Union	Boone	1/5/2004	MONITORING WELL - AMBIENT MONITORING	740	6.5	733.5	597.5		Matracia & Matracia Partnershi	UST
80049429	38.87861	-84.6994	Union	Boone	1/5/2004	MONITORING WELL - AMBIENT MONITORING	740	4	736	600		Matracia & Matracia Partnershi	UST
80050961	38.85639	-84.6669	Verona	Boone	11/9/2005	MONITORING WELL - AMBIENT MONITORING	800					Bavarian Trucking Co Inc	Solid Waste
80053954	38.90083	-84.8369	Rising Sun	Boone	9/20/2007	MONITORING WELL - AMBIENT MONITORING		45				Duke Energy Kentucky Inc	Solid Waste
80053955	38.90389	-84.8369	Rising Sun	Boone	9/18/2007	MONITORING WELL - AMBIENT MONITORING		117.5				Duke Energy Kentucky Inc	Solid Waste

Exhibit 6C

Sterling Materials – Verona, KY
Underground Cross Section





Pencil Cave Bentonite Seam
Thickness: ≈ 18"
Elevation: +266'

Mud Cave Bentonite Seam
Thickness: ≈ 24"
Elevation: +247'

Surface Varies from 500' to 800'

+500' (Top of Slope Elevation)

+393' (Mine Entrance Elevation)

Gypsum – Delivery Shaft

+266' – Pencil Cave Bentonite Seam Elevation

+247' – Mud Cave Bentonite Seam Elevation

+136' (Avg Level 1 Ceiling Elevation)

1st Level

+86' (Avg Level 1 Floor Elevation)

+28' (Avg Level 2 Ceiling Elevation)

2nd Level

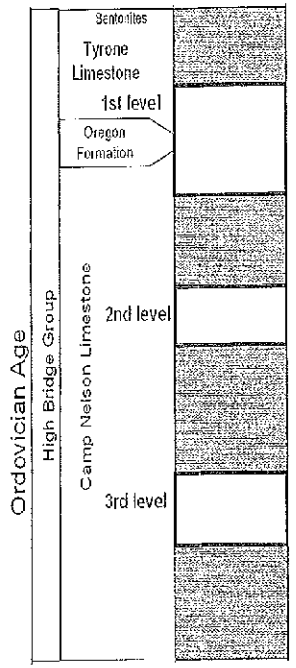
+2' (Avg Level 1 Floor Elevation)

-149' (Avg Level 3 Ceiling Elevation)

3rd Level

-182' (Avg Level 1 Floor Elevation)

Interior Mine Photo: Typical Storage Area



Notes:
- Drawing Not to Scale.
- Mine ceiling and floor elevations are based on average elevations across each level.
- Bentonite Seam and Rock Stratigraphy Information Resource: Kentucky Geological Survey, University of Kentucky, Lexington Series X, 1974. High Carbonate Rock in the High Bridge Group (Middle Ordovician), Boone County, Kentucky. Author: Garland R. Dever, Jr.
- Elevations are referenced at Sea Level.

DEP 7059F (1/06)

Attachment 7
Special Waste Sources and Amounts Log Sheet

1. Registrant Name: _____ 2. County: _____

3. Agency Interest #: _____ 4. Registration #: ____-_____

5. Contact Person: _____ 6. Title: _____

7. Phone #: (___)___-____ 8. Fax #: (___)___-____ 9. Cell #: (___)___-____

Report prepared for the months of: _____, _____ and _____ Year: ____

Name of Special Waste Generator (Source of Special Waste)	Amount Received (Dry Tons)

10. **"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for such violations."**

Authorized Signature _____ Date _____

Name: (Typed or Printed) _____ Title: _____

Annual Revenue Requirements - Ghent Landfill - KU Project 30 with Beneficial Reuse -Sterling Ventures Mine

	Capital					O&M				Total
	Phase 1	Phase 2	Phase 3	Final Cap	Total	Non-Power	Power	Beneficial Reuse	Total O&M	
12/31/2009	480,509	-	-		480,509		84,800	-	84,800	565,309
12/31/2010	3,553,056	-	-		3,553,056		127,832	-	127,832	3,680,888
12/31/2011	7,177,211	-	-		7,177,211		198,348	-	198,348	7,375,559
12/31/2012	13,654,069	-	-		13,654,069		294,577	-	294,577	13,948,646
12/31/2013	14,678,389	-	-		14,678,389		24,380,117	(489,556)	23,890,561	38,568,950
12/31/2014	15,152,993	-	-		15,152,993		26,056,704	(495,467)	25,561,237	40,714,230
12/31/2015	14,539,006	-	-		14,539,006		27,290,868	(436,289)	26,854,579	41,393,584
12/31/2016	13,883,815	-	-		13,883,815		28,578,421	(387,511)	28,190,911	42,074,725
12/31/2017	13,255,915	-	-		13,255,915		29,956,559	(348,918)	29,607,640	42,863,556
12/31/2018	12,653,016	-	-		12,653,016		31,612,174	(501,636)	31,110,538	43,763,554
12/31/2019	12,016,402	-	-		12,016,402		33,594,783	(873,325)	32,721,458	44,737,860
12/31/2020	11,379,788	-	-		11,379,788		35,566,861	(1,101,031)	34,465,830	45,845,618
12/31/2021	10,743,173	-	-		10,743,173		38,056,766	(1,114,736)	36,942,030	47,685,203
12/31/2022	10,106,559	-	-		10,106,559		39,920,041	(1,025,754)	38,894,287	49,000,846
12/31/2023	9,469,945	-	-		9,469,945		41,890,306	(931,433)	40,958,872	50,428,818
12/31/2024	8,833,331	-	-		8,833,331		44,529,811	(1,382,478)	43,147,333	51,980,664
12/31/2025	8,196,717	-	-		8,196,717		47,885,193	(2,392,499)	45,492,694	53,689,411
12/31/2026	7,560,103	52,720	-		7,612,823		51,399,644	(3,382,211)	48,017,432	55,630,256
12/31/2027	6,923,489	156,032	-		7,079,520		54,431,913	(3,728,255)	50,703,658	57,783,179
12/31/2028	6,286,875	993,170	-		7,280,044		55,178,509	(3,378,832)	51,799,676	59,079,720
12/31/2029	5,650,260	2,639,761	-		8,290,021		57,858,589	(2,798,637)	55,059,952	63,349,973
12/31/2030	5,013,646	3,691,001	-		8,704,647		60,699,474	(2,349,913)	58,349,561	67,054,208
12/31/2031	4,377,032	3,904,584	-		8,281,616		63,710,812	(2,101,930)	61,608,882	69,890,498
12/31/2032	3,740,418	3,734,217	-		7,474,635		66,902,830	(1,942,577)	64,960,253	72,434,888
12/31/2033	3,103,804	3,563,850	-		6,667,654		70,286,369	(1,773,662)	68,512,707	75,180,361
12/31/2034	2,467,190	3,393,483	-		5,860,673		73,872,921	(1,594,613)	72,278,307	78,138,980
12/31/2035	1,830,576	3,223,116	-		5,053,692		77,674,665	(1,404,821)	76,269,844	81,323,536
12/31/2036	1,193,961	3,052,749	-		4,246,711		81,704,515	(1,203,641)	80,500,873	84,747,584
12/31/2037	557,347	2,882,383	-		3,439,730		85,976,155	(990,391)	84,985,764	88,425,494
2009 PVRR	111,212,472	5,355,077	-		116,567,550		354,316,774	(10,448,976)	343,867,798	460,435,348
Cubic Yards	17,350,000	7,807,500			25,157,500		25,157,500		25,157,500	25,157,500
									$/CY (PVRR)	$ 18.30

CASE	Option 30	Option 30 with Benefical Reuse
PVRR		
Capital	$ 192,717,582	$ 116,567,550
O&M	354,316,774	343,867,798
Total	$ 547,034,356	$ 460,435,348
Delta to Least Cost	**$ 86,599,008**	Least Cost
Unit Cost (2009 PVRR $/CY)	$ 21.74	$ 18.30

NOTE-This Table Requires $9.00 Price Inserted into cell D16 of PVRR Analysis

Annual Revenue Requirements - Ghent Landfill - KU Project 30 with Beneficial Reuse -Sterling Ventures Mine With Scrubber Stone Backhaul

	Capital					O&M				Total
	Phase 1	Phase 2	Phase 3	Final Cap	Total	Non-Power	Power	Beneficial Reuse	Total O&M	
12/31/2009	480,509	-	-		480,509		84,800	-	84,800	565,309
12/31/2010	3,553,056	-	-		3,553,056		127,832	-	127,832	3,680,888
12/31/2011	7,177,211	-	-		7,177,211		198,348	-	198,348	7,375,559
12/31/2012	13,654,069	-	-		13,654,069		294,577	-	294,577	13,948,646
12/31/2013	14,678,389	-	-		14,678,389		24,380,117	(1,989,556)	22,390,561	37,068,950
12/31/2014	15,152,993	-	-		15,152,993		26,056,704	(2,085,467)	23,971,237	39,124,230
12/31/2015	14,539,006	-	-		14,539,006		27,290,868	(2,121,689)	25,169,179	39,708,184
12/31/2016	13,883,815	-	-		13,883,815		28,578,421	(2,174,035)	26,404,387	40,288,201
12/31/2017	13,255,915	-	-		13,255,915		29,956,559	(2,242,634)	27,713,925	40,969,840
12/31/2018	12,653,016	-	-		12,653,016		31,612,174	(2,508,974)	29,103,199	41,756,215
12/31/2019	12,016,402	-	-		12,016,402		33,594,783	(3,001,104)	30,593,680	42,610,081
12/31/2020	11,379,788	-	-		11,379,788		35,566,861	(3,356,477)	32,210,385	43,590,172
12/31/2021	10,743,173	-	-		10,743,173		38,056,766	(3,505,508)	34,551,257	45,294,431
12/31/2022	10,106,559	-	-		10,106,559		39,920,041	(3,559,973)	36,360,069	46,466,628
12/31/2023	9,469,945	-	-		9,469,945		41,890,306	(3,617,705)	38,272,601	47,742,546
12/31/2024	8,833,331	-	-		8,833,331		44,529,811	(4,229,926)	40,299,885	49,133,216
12/31/2025	8,196,717	-	-		8,196,717		47,885,193	(5,410,794)	42,474,399	50,671,116
12/31/2026	7,560,103	52,720	-		7,612,823		51,399,644	(6,581,604)	44,818,040	52,430,863
12/31/2027	6,923,489	156,032	-		7,079,520		54,431,913	(7,119,611)	47,312,302	54,391,823
12/31/2028	6,286,875	993,170	-		7,280,044		55,178,509	(6,973,670)	48,204,839	55,484,883
12/31/2029	5,650,260	2,639,761	-		8,290,021		57,858,589	(6,609,164)	51,249,425	59,539,446
12/31/2030	5,013,646	3,691,001	-		8,704,647		60,699,474	(6,389,072)	54,310,402	63,015,049
12/31/2031	4,377,032	3,904,584	-		8,281,616		63,710,812	(6,383,438)	57,327,373	65,608,989
12/31/2032	3,740,418	3,734,217	-		7,474,635		66,902,830	(6,480,976)	60,421,854	67,896,489
12/31/2033	3,103,804	3,563,850	-		6,667,654		70,286,369	(6,584,365)	63,702,004	70,369,657
12/31/2034	2,467,190	3,393,483	-		5,860,673		73,872,921	(6,693,958)	67,178,962	73,039,635
12/31/2035	1,830,576	3,223,116	-		5,053,692		77,674,665	(6,810,127)	70,864,538	75,918,230
12/31/2036	1,193,961	3,052,749	-		4,246,711		81,704,515	(6,933,266)	74,771,249	79,017,960
12/31/2037	557,347	2,882,383	-		3,439,730		85,976,155	(7,063,793)	78,912,362	82,352,092
2009 PVRR	111,212,472	5,355,077	-		116,567,550		354,316,774	(33,255,638)	321,061,136	437,628,685
Cubic Yards	17,350,000	7,807,500			25,157,500		25,157,500		25,157,500	25,157,500
									$/CY (PVRR)	$ 17.40

CASE	Option 30	Option 30 with Benefical Reuse
PVRR		
Capital	$ 192,717,582	$ 116,567,550
O&M	354,316,774	321,061,136
Total	$ 547,034,356	$ 437,628,685
Delta to Least Cost	**$ 109,405,671**	Least Cost
Unit Cost (2009 PVRR $/CY)	$ 21.74	$ 17.40

	Annual Revenue Requirements - Ghent Landfill - KU Project 30									
	Capital					O&M				Total
	Phase 1	Phase 2	Phase 3	Final Cap	Total	Non-Power	Power	Beneficial Reuse	Total O&M	
12/31/2009	480,509	-	-		480,509		84,800		84,800	565,309
12/31/2010	5,098,729	-	-		5,098,729		127,832		127,832	5,226,561
12/31/2011	11,571,793	-	-		11,571,793		198,348		198,348	11,770,141
12/31/2012	19,480,236	-	-		19,480,236		294,577		294,577	19,774,813
12/31/2013	20,326,462	-	-		20,326,462		24,380,117		24,380,117	44,706,579
12/31/2014	20,544,834	-	-		20,544,834		26,056,704		26,056,704	46,601,539
12/31/2015	19,687,280	-	-		19,687,280		27,290,868		27,290,868	46,978,148
12/31/2016	18,799,210	52,684	-		18,851,894		28,578,421		28,578,421	47,430,316
12/31/2017	17,948,314	155,939	-		18,104,253		29,956,559		29,956,559	48,060,812
12/31/2018	17,131,380	993,170	-		18,124,550		31,612,174		31,612,174	49,736,723
12/31/2019	16,268,561	2,639,761	-		18,908,322		33,594,783		33,594,783	52,503,105
12/31/2020	15,405,743	3,691,001	-		19,096,743		35,566,861		35,566,861	54,663,605
12/31/2021	14,542,924	3,904,584	-		18,447,508		38,056,766		38,056,766	56,504,274
12/31/2022	13,680,105	3,734,217	-		17,414,322		39,920,041		39,920,041	57,334,363
12/31/2023	12,817,286	3,563,850	-		16,381,136		41,890,306		41,890,306	58,271,442
12/31/2024	11,954,467	3,393,483	2,082,456		17,430,407		44,529,811		44,529,811	61,960,218
12/31/2025	11,091,649	3,223,116	6,215,971		20,530,736		47,885,193		47,885,193	68,415,929
12/31/2026	10,228,830	3,052,749	10,179,118		23,460,698		51,399,644		51,399,644	74,860,342
12/31/2027	9,366,011	2,882,383	11,617,513		23,865,907		54,431,913		54,431,913	78,297,820
12/31/2028	8,503,192	2,712,016	11,117,397		22,332,605		55,178,509		55,178,509	77,511,114
12/31/2029	7,640,374	2,541,649	10,617,281		20,799,303		57,858,589		57,858,589	78,657,892
12/31/2030	6,777,555	2,371,282	10,117,164		19,266,001		60,699,474		60,699,474	79,965,474
12/31/2031	5,914,736	2,200,915	9,617,048		17,732,699		63,710,812		63,710,812	81,443,510
12/31/2032	5,051,917	2,030,548	9,116,931		16,199,397		66,902,830		66,902,830	83,102,226
12/31/2033	4,189,098	1,860,181	8,616,815		14,666,095		70,286,369		70,286,369	84,952,464
12/31/2034	3,326,280	1,689,814	8,116,699		13,132,793		73,872,921		73,872,921	87,005,713
12/31/2035	2,463,461	1,519,447	7,616,582		11,599,490		77,674,665		77,674,665	89,274,156
12/31/2036	1,600,642	1,349,080	7,116,466		10,066,188		81,704,515		81,704,515	91,770,703
12/31/2037	737,823	1,178,714	6,616,349		8,532,886		85,976,155		85,976,155	94,509,041
2009 PVRR	153,383,226	14,945,173	24,389,184		192,717,582		354,316,774		354,316,774	547,034,356
Cubic Yards	9,542,500	6,072,500	9,542,500		25,157,500		25,157,500		25,157,500	25,157,500
									$/CY (PVRR)	$ 21.74

	A	B	C	D	E	F	G	H	I
1	Revenue Requirments Summary								
2	Gypsum Disposal at Sterling Materials					2009	2010	2011	2012
3									
4	Revenue Requirement								
5	Eligible Plant					$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356
6	Less Gypsum Plant Requirements/Phase Delays					$ -	$ (14,090,000)	$ (40,060,000)	$ (53,110,000)
7	Revised Eligible Plant					$ 4,321,671	$ 32,388,846	$ 65,425,803	$ 124,467,356
8	Less Accumulated Depreciation								
9	Less Deferred Tax Balance								
10	Environmental Compliance Rate Base					$ 4,321,671	$ 32,388,846	$ 65,425,803	$ 124,467,356
11	Rate of Return					11.1%	10.97%	10.97%	10.97%
12		Assumed	Tons (1.155)	1,000,000		$ 480,509	$ 3,553,056	$ 7,177,211	$ 13,654,069
13		86.7500%	Cubic yards	867,500					
14	Operating Expenses					$ 84,800	$ 121,349	$ 128,630	$ 136,348
15	less Gypsum to On-site Landfill								
16	Gypsum to Sterling			**$ 10.50**					
17	Net Operating					$ 84,800	$ 121,349	$ 128,630	$ 136,348
18	Annual Depreciation								
19	Annual Property Tax Expense						$ 6,483	$ 69,718	$ 158,229
20	Total OE					$ 84,800	$ 127,832	$ 198,348	$ 294,577
21									
22	Total E(m) Gypsum to Sterling				**$ 460,435,348**	$ 565,309	$ 3,680,888	$ 7,375,559	$ 13,948,646
23	Total E(m) - Project 30 (See below)				**$ 547,034,356**	$ 565,309	$ 5,226,561	$ 11,770,141	$ 19,774,813
24									
25	**Difference**		**PVRR**	**7.81%**	**$ (86,599,008)**	$ -	$ (1,545,673)	$ (4,394,582)	$ (5,826,167)
26	Date					12/31/2009	12/31/2010	12/31/2011	12/31/2012
27									
28	Revenue Requirments Summary								
29	2009 Amended Plan								
30	Project 30		Ghent Landfill Phase I						
31	See Exhibit B					2009	2010	2011	2012
32									
33	Revenue Requirement								
34	Eligible Plant					$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356
35	Less Gypsum Plant Requirements/Phase Delays					$ -	$ -	$ -	$ -
36	Revised Eligible Plant					$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356
37	Less Accumulated Depreciation								
38	Less Deferred Tax Balance								
39	Environmental Compliance Rate Base					$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356
40	Rate of Return					11.1%	10.97%	10.97%	10.97%
41						$ 480,509	$ 5,098,729	$ 11,571,793	$ 19,480,236
42									
43	Operating Expenses					$ 84,800	$ 121,349	$ 128,630	$ 136,348
44	less Gypsum to On-site Landfill								
45	Gypsum to Sterling								
46	Net Operating					$ 84,800	$ 121,349	$ 128,630	$ 136,348
47	Annual Depreciation								
48	Annual Property Tax Expense						$ 6,483	$ 69,718	$ 158,229
49	Total OE					$ 84,800	$ 127,832	$ 198,348	$ 294,577
50									
51	Total E(m) Gypsum to On-site Landfill as Calculated				**547,034,356**	$ 565,309	$ 5,226,561	$ 11,770,141	$ 19,774,813

	J	K	L	M	N	O	P	Q	R	S	T	U	V
1													
2	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
3													
4													
5	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 203,078,976	$ 204,078,976	$ 212,078,976	$ 228,078,976	$ 239,078,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 262,328,976	$ 302,328,976
6	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,610,000)	$ (54,610,000)	$ (62,610,000)	$ (78,610,000)	$ (89,610,000)	$ (93,110,000)	$ (93,110,000)	$ (93,110,000)	$ (112,860,000)	$ (152,860,000)
7	$ 138,023,918	$ 148,831,953	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976
8	$ (3,690,414)	$ (7,842,826)	$ (12,013,010)	$ (16,183,194)	$ (20,353,378)	$ (24,523,563)	$ (28,693,747)	$ (32,863,931)	$ (37,034,115)	$ (41,204,299)	$ (45,374,483)	$ (49,544,667)	$ (53,714,851)
9	$ (528,683)	$ (2,857,926)	$ (4,921,730)	$ (6,724,117)	$ (8,277,719)	$ (9,603,427)	$ (11,236,471)	$ (12,869,515)	$ (14,502,559)	$ (16,135,603)	$ (17,768,648)	$ (19,401,692)	$ (21,034,736)
10	$ 133,804,821	$ 138,131,202	$ 132,534,236	$ 126,561,665	$ 120,837,879	$ 115,341,986	$ 109,538,758	$ 103,735,530	$ 97,932,302	$ 92,129,073	$ 86,325,845	$ 80,522,617	$ 74,719,389
11	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
12	$ 14,678,389	$ 15,152,993	$ 14,539,006	$ 13,883,815	$ 13,255,915	$ 12,653,016	$ 12,016,402	$ 11,379,788	$ 10,743,173	$ 10,106,559	$ 9,469,945	$ 8,833,331	$ 8,196,717
13								$ 27,051	$ 661,940				
14	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,556	**$ 28,601,000**	**$ 30,979,000**	$ 32,837,740	$ 34,808,004	$ 36,896,485	$ 39,110,274
15	$ (9,569,527)	$ (10,143,699)	$ (10,752,321)	$ (11,397,460)	$ (12,081,307)	$ (12,806,186)	$ (13,574,557)	$ (14,389,030)	$ (15,252,372)	$ (16,167,515)	$ (17,137,565)	$ (18,165,819)	$ (19,255,768)
16	$ 10,500,000	$ 11,130,000	$ 11,797,800	$ 12,505,668	$ 13,256,008	$ 14,051,369	$ 14,894,451	$ 15,788,118	$ 16,735,405	$ 17,739,529	$ 18,803,901	$ 19,932,135	$ 21,128,063
17	$ 19,933,781	$ 21,129,808	$ 22,397,596	$ 23,741,452	$ 25,165,940	$ 26,675,896	$ 28,276,450	$ 30,000,087	$ 32,462,033	$ 34,409,755	$ 36,474,340	$ 38,662,800	$ 40,982,568
18	$ 3,690,414	$ 4,152,411	$ 4,170,184	$ 4,170,185	$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,170,184
19	$ 266,366	$ 279,017	$ 286,798	$ 279,274	$ 271,517	$ 264,458	$ 274,825	$ 295,558	$ 309,813	$ 314,348	$ 314,348	$ 314,348	$ 339,942
20	$ 23,890,561	$ 25,561,237	$ 26,854,579	$ 28,190,911	$ 29,607,640	$ 31,110,538	$ 32,721,458	$ 34,465,830	$ 36,942,030	$ 38,894,287	$ 40,958,872	$ 43,147,333	$ 45,492,694
21													
22	$ 38,568,950	$ 40,714,230	$ 41,393,584	$ 42,074,725	$ 42,863,556	$ 43,763,554	$ 44,737,860	$ 45,845,618	$ 47,685,203	$ 49,000,846	$ 50,428,818	$ 51,980,664	$ 53,689,411
23	$ 44,706,579	$ 46,601,539	$ 46,978,148	$ 47,430,316	$ 48,060,812	$ 49,736,723	$ 52,503,105	$ 54,663,605	$ 56,504,274	$ 57,334,363	$ 58,271,442	$ 61,960,218	$ 68,415,929
24													
25	$ (6,137,629)	$ (5,887,309)	$ (5,584,564)	$ (5,355,590)	$ (5,197,256)	$ (5,973,170)	$ (7,765,245)	$ (8,817,987)	$ (8,819,070)	$ (8,333,517)	$ (7,842,625)	$ (9,979,554)	$ (14,726,518)
26	12/31/2013	12/31/2014	12/31/2015	12/31/2016	12/31/2017	12/31/2018	12/31/2019	12/31/2020	12/31/2021	12/31/2022	12/31/2023	12/31/2024	12/31/2025
27													
28													
29													
30													
31	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
32				**Start Phase II**								**Start Phase III**	
33				$ 500,000	$ 1,000,000	$ 8,000,000	$ 16,000,000	$ 11,000,000	$ 3,500,000			$ 19,750,000	$ 40,000,000
34	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 203,078,976	$ 204,078,976	$ 212,078,976	$ 228,078,976	$ 239,078,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 262,328,976	$ 302,328,976
35	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
36	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 203,078,976	$ 204,078,976	$ 212,078,976	$ 228,078,976	$ 239,078,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 262,328,976	$ 302,328,976
37	$ (5,110,443)	$ (10,744,623)	$ (16,396,576)	$ (22,062,480)	$ (27,756,283)	$ (33,673,286)	$ (40,036,689)	$ (46,706,992)	$ (53,474,945)	$ (60,242,897)	$ (67,010,850)	$ (74,329,828)	$ (82,764,806)
38	$ (732,114)	$ (3,915,341)	$ (6,717,677)	$ (9,166,960)	$ (11,288,480)	$ (13,186,459)	$ (15,678,367)	$ (18,290,458)	$ (20,940,788)	$ (23,591,119)	$ (26,241,449)	$ (29,107,561)	$ (32,410,698)
39	$ 185,291,361	$ 187,281,989	$ 179,464,723	$ 171,849,536	$ 165,034,213	$ 165,219,232	$ 172,363,920	$ 174,081,526	$ 168,163,243	$ 158,744,960	$ 149,326,677	$ 158,891,587	$ 187,153,472
40	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
41	$ 20,326,462	$ 20,544,834	$ 19,687,280	$ 18,851,894	$ 18,104,253	$ 18,124,550	$ 18,908,322	$ 19,096,743	$ 18,447,508	$ 17,414,322	$ 16,381,136	$ 17,430,407	$ 20,530,736
42								$ 27,051	$ 661,940				
43	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,556	**$ 28,601,000**	**$ 30,979,000**	$ 32,837,740	$ 34,808,004	$ 36,896,485	$ 39,110,274
44	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
45	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
46	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,556	$ 28,601,000	$ 30,979,000	$ 32,837,740	$ 34,808,004	$ 36,896,485	$ 39,110,274
47	$ 5,110,443	$ 5,634,180	$ 5,651,953	$ 5,665,904	$ 5,693,803	$ 5,917,003	$ 6,363,403	$ 6,670,303	$ 6,767,953	$ 6,767,953	$ 6,767,953	$ 7,318,978	$ 8,434,978
48	$ 266,366	$ 279,017	$ 286,798	$ 279,274	$ 271,517	$ 264,458	$ 274,825	$ 295,558	$ 309,813	$ 314,348	$ 314,348	$ 314,348	$ 339,942
49	$ 24,380,117	$ 26,056,704	$ 27,290,868	$ 28,578,421	$ 29,956,559	$ 31,612,174	$ 33,594,783	$ 35,566,861	$ 38,056,766	$ 39,920,041	$ 41,890,306	$ 44,529,811	$ 47,885,193
50													
51	$ 44,706,579	$ 46,601,539	$ 46,978,148	$ 47,430,316	$ 48,060,812	$ 49,736,723	$ 52,503,105	$ 54,663,605	$ 56,504,274	$ 57,334,363	$ 58,271,442	$ 61,960,218	$ 68,415,929

	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI
1													
2	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	
3	**Start Phase II**												
4	$ 500,000	$ 1,000,000	$ 8,000,000	$ 16,000,000	$ 11,000,000	$ 3,500,000							
5	$ 342,328,976	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	
6	$ (192,360,000)	$ (209,031,024)	$ (201,031,024)	$ (185,031,024)	$ (174,031,024)	$ (170,531,024)	$ (170,531,024)	$ (170,531,024)	$ (170,531,024)	$ (170,531,024)	$ (170,531,024)	$ (170,531,024)	
7	$ 149,968,976	$ 150,968,976	$ 158,968,976	$ 174,968,976	$ 185,968,976	$ 189,468,976	$ 189,468,976	$ 189,468,976	$ 189,468,976	$ 189,468,976	$ 189,468,976	$ 189,468,976	
8	$ (57,898,986)	$ (62,111,020)	$ (66,546,254)	$ (71,427,888)	$ (76,616,422)	$ (81,902,606)	$ (87,188,790)	$ (92,474,974)	$ (97,761,158)	$ (103,047,342)	$ (108,333,526)	$ (113,619,710)	
9	$ (22,673,243)	$ (24,322,675)	$ (26,059,513)	$ (27,971,161)	$ (30,002,991)	$ (32,073,060)	$ (34,143,130)	$ (36,213,200)	$ (38,283,269)	$ (40,353,339)	$ (42,423,409)	$ (44,493,479)	
10	$ 69,396,748	$ 64,535,281	$ 66,363,209	$ 75,569,927	$ 79,349,563	$ 75,493,310	$ 68,137,056	$ 60,780,802	$ 53,424,548	$ 46,068,295	$ 38,712,041	$ 31,355,787	
11	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	
12	$ 7,612,823	$ 7,079,520	$ 7,280,044	$ 8,290,021	$ 8,704,647	$ 8,281,616	$ 7,474,635	$ 6,667,654	$ 5,860,673	$ 5,053,692	$ 4,246,711	$ 3,439,730	$ 259,765,660
13			$ (1,912,962)										
14	$ 41,456,890	$ 43,944,304	**$ 44,668,000**	$ 47,348,080	$ 50,188,965	$ 53,200,303	$ 56,392,321	$ 59,775,860	$ 63,362,412	$ 67,164,156	$ 71,194,006	$ 75,465,646	
15	$ (20,411,115)	$ (21,635,781)	$ (22,933,928)	$ (24,309,964)	$ (25,768,562)	$ (27,314,676)	$ (28,953,556)	$ (30,690,769)	$ (32,532,216)	$ (34,484,149)	$ (36,553,198)	$ (38,746,389)	
16	$ 22,395,747	$ 23,739,492	$ 25,163,861	$ 26,673,693	$ 28,274,114	$ 29,970,561	$ 31,768,795	$ 33,674,922	$ 35,695,418	$ 37,837,143	$ 40,107,371	$ 42,513,814	
17	$ 43,441,522	$ 46,048,014	$ 46,897,933	$ 49,711,809	$ 52,694,517	$ 55,856,188	$ 59,207,559	$ 62,760,013	$ 66,525,614	$ 70,517,151	$ 74,748,180	$ 79,233,071	
18	$ 4,184,134	$ 4,212,034	$ 4,435,234	$ 4,881,634	$ 5,188,534	$ 5,286,184	$ 5,286,184	$ 5,286,184	$ 5,286,184	$ 5,286,184	$ 5,286,184	$ 5,286,184	
19	$ 391,776	$ 443,610	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	
20	$ 48,017,432	$ 50,703,658	$ 51,799,676	$ 55,059,952	$ 58,349,561	$ 61,608,882	$ 64,960,253	$ 68,512,707	$ 72,278,307	$ 76,269,844	$ 80,500,873	$ 84,985,764	
21													
22	$ 55,630,256	$ 57,783,179	$ 59,079,720	$ 63,349,973	$ 67,054,208	$ 69,890,498	$ 72,434,888	$ 75,180,361	$ 78,138,980	$ 81,323,536	$ 84,747,584	$ 88,425,494	$ 1,471,356,097
23	$ 74,860,342	$ 78,297,820	$ 77,511,114	$ 78,657,892	$ 79,965,474	$ 81,443,510	$ 83,102,226	$ 84,952,464	$ 87,005,713	$ 89,274,156	$ 91,770,703	$ 94,509,041	$ 1,731,854,332
24													
25	$ (19,230,086)	$ (20,514,642)	$ (18,431,393)	$ (15,307,918)	$ (12,911,267)	$ (11,553,012)	$ (10,667,338)	$ (9,772,103)	$ (8,866,733)	$ (7,950,620)	$ (7,023,119)	$ (6,083,547)	**$ (260,498,235)**
26	12/31/2026	12/31/2027	12/31/2028	12/31/2029	12/31/2030	12/31/2031	12/31/2032	12/31/2033	12/31/2034	12/31/2035	12/31/2036	12/31/2037	
27													$ (260,498,235)
28													
29													
30													
31	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	
32													
33	$ 40,000,000	$ 17,671,024											$ 117,421,024
34	$ 342,328,976	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	
35	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
36	$ 342,328,976	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	
37	$ (92,315,784)	$ (102,359,783)	$ (112,403,782)	$ (122,447,782)	$ (132,491,781)	$ (142,535,780)	$ (152,579,779)	$ (162,623,779)	$ (172,667,778)	$ (182,711,777)	$ (192,755,777)	$ (202,799,776)	
38	$ (36,150,861)	$ (40,084,091)	$ (44,017,321)	$ (47,950,551)	$ (51,883,781)	$ (55,817,012)	$ (59,750,242)	$ (63,683,472)	$ (67,616,702)	$ (71,549,932)	$ (75,483,162)	$ (79,416,392)	
39	$ 213,862,331	$ 217,556,126	$ 203,578,896	$ 189,601,667	$ 175,624,438	$ 161,647,208	$ 147,669,979	$ 133,692,750	$ 119,715,520	$ 105,738,291	$ 91,761,061	$ 77,783,832	
40	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	
41	$ 23,460,698	$ 23,865,907	$ 22,332,605	$ 20,799,303	$ 19,266,001	$ 17,732,699	$ 16,199,397	$ 14,666,095	$ 13,132,793	$ 11,599,490	$ 10,066,188	$ 8,532,886	$ 482,133,777
42			$ (1,912,962)										
43	$ 41,456,890	$ 43,944,304	**$ 44,668,000**	$ 47,348,080	$ 50,188,965	$ 53,200,303	$ 56,392,321	$ 59,775,860	$ 63,362,412	$ 67,164,156	$ 71,194,006	$ 75,465,646	
44	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
45	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
46	$ 41,456,890	$ 43,944,304	$ 44,668,000	$ 47,348,080	$ 50,188,965	$ 53,200,303	$ 56,392,321	$ 59,775,860	$ 63,362,412	$ 67,164,156	$ 71,194,006	$ 75,465,646	
47	$ 9,550,978	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	
48	$ 391,776	$ 443,610	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	
49	$ 51,399,644	$ 54,431,913	$ 55,178,509	$ 57,858,589	$ 60,699,474	$ 63,710,812	$ 66,902,830	$ 70,286,369	$ 73,872,921	$ 77,674,665	$ 81,704,515	$ 85,976,155	$ 1,249,720,555
50													
51	$ 74,860,342	$ 78,297,820	$ 77,511,114	$ 78,657,892	$ 79,965,474	$ 81,443,510	$ 83,102,226	$ 84,952,464	$ 87,005,713	$ 89,274,156	$ 91,770,703	$ 94,509,041	$ 1,731,854,332

	A	B	C	D	E	F	G	H	I
52	Total E(m) Gypsum to On-site Landfill per KU					$ 565,309	$ 5,226,225	$ 11,769,378	$ 19,773,538
53									
54	Calculation Check Difference					$ -	$ 336	$ 763	$ 1,285
55									
56									
57	Site E/F	Hauling cost of Ash 2.25 mile round trip							
58		Haul Road Maintenance							
59	Total								
60	Reduce by 50% for Site M					$ -	$ -	$ -	$ -
61	**Difference**		**PVRR**	**7.81%**	**$ (21,865,903)**				

	J	K	L	M	N	O	P	Q	R	S	T	U	V
52	$ 44,705,239	$ 46,600,208	$ 46,976,843	$ 47,458,553	$ 48,044,547	$ 48,653,648							
53													
54	$ 1,340	$ 1,331	$ 1,305	$ (28,237)	$ 16,265	$ 1,083,075							
55													
56													
57	$ 2,822,723	$ 2,992,086	$ 3,171,612	$ 3,361,908	$ 3,563,623	$ 3,777,440	$ 4,004,087	$ 4,244,332	$ 4,498,992	$ 4,768,931	$ 5,055,067	$ 5,358,371	$ 5,679,873
58	$ 53,529	$ 56,741	$ 60,145	$ 63,754	$ 67,579	$ 71,634	$ 75,932	$ 80,488	$ 85,317	$ 90,436	$ 95,862	$ 101,614	$ 107,711
59	$ 2,876,252	$ 3,048,827	$ 3,231,757	$ 3,425,662	$ 3,631,202	$ 3,849,074	$ 4,080,018	$ 4,324,820	$ 4,584,309	$ 4,859,367	$ 5,150,929	$ 5,459,985	$ 5,787,584
60	$ 1,438,126	$ 1,524,414	$ 1,615,878	$ 1,712,831	$ 1,815,601	$ 1,924,537	$ 2,040,009	$ 2,162,410	$ 2,292,154	$ 2,429,684	$ 2,575,465	$ 2,729,993	$ 2,893,792
61													

	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI
52													
53													
54													
55													
56													
57	$ 6,020,666	$ 6,381,906	$ 6,764,820	$ 7,170,709	$ 7,600,952	$ 8,057,009	$ 8,540,429	$ 9,052,855	$ 9,596,026	$ 10,171,788	$ 10,782,095	$ 11,429,021	
58	$ 114,174	$ 121,024	$ 128,285	$ 135,982	$ 144,141	$ 152,790	$ 161,957	$ 171,675	$ 181,975	$ 192,894	$ 204,467	$ 216,735	
59	$ 6,134,839	$ 6,502,930	$ 6,893,105	$ 7,306,692	$ 7,745,093	$ 8,209,799	$ 8,702,387	$ 9,224,530	$ 9,778,002	$ 10,364,682	$ 10,986,563	$ 11,645,756	
60	$ 3,067,420	$ 3,251,465	$ 3,446,553	$ 3,653,346	$ 3,872,547	$ 4,104,899	$ 4,351,193	$ 4,612,265	$ 4,889,001	$ 5,182,341	$ 5,493,281	$ 5,822,878	
61													

Cell: D16
Comment: John Walters:
Insert $9.00 for Limestone Backhaul calculation

	A	B	C	D	E	F	G	H	I
1		**Annual Revenue Requirements - Ghent Landfill - KU Project 30**							
2									
3		Capital					O&M		
4									
5									Beneficial
6		Phase 1	Phase 2	Phase 3	Final Cap	Total	Non-Power	Power	Reuse
7	12/31/2009	480,509	-	-		480,509		84,800	
8	12/31/2010	5,098,729	-	-		5,098,729		127,832	
9	12/31/2011	11,571,793	-	-		11,571,793		198,348	
10	12/31/2012	19,480,236	-	-		19,480,236		294,577	
11	12/31/2013	20,326,462	-	-		20,326,462		24,380,117	
12	12/31/2014	20,544,834	-	-		20,544,834		26,056,704	
13	12/31/2015	19,687,280	-	-		19,687,280		27,290,868	
14	12/31/2016	18,799,210	52,684	-		18,851,894		28,578,421	
15	12/31/2017	17,948,314	155,939	-		18,104,253		29,956,559	
16	12/31/2018	17,131,380	993,170	-		18,124,550		31,612,174	
17	12/31/2019	16,268,561	2,639,761	-		18,908,322		33,594,783	
18	12/31/2020	15,405,743	3,691,001	-		19,096,743		35,566,861	
19	12/31/2021	14,542,924	3,904,584	-		18,447,508		38,056,766	
20	12/31/2022	13,680,105	3,734,217	-		17,414,322		39,920,041	
21	12/31/2023	12,817,286	3,563,850	-		16,381,136		41,890,306	
22	12/31/2024	11,954,467	3,393,483	2,082,456		17,430,407		44,529,811	
23	12/31/2025	11,091,649	3,223,116	6,215,971		20,530,736		47,885,193	
24	12/31/2026	10,228,830	3,052,749	10,179,118		23,460,698		51,399,644	
25	12/31/2027	9,366,011	2,882,383	11,617,513		23,865,907		54,431,913	
26	12/31/2028	8,503,192	2,712,016	11,117,397		22,332,605		55,178,509	
27	12/31/2029	7,640,374	2,541,649	10,617,281		20,799,303		57,858,589	
28	12/31/2030	6,777,555	2,371,282	10,117,164		19,266,001		60,699,474	
29	12/31/2031	5,914,736	2,200,915	9,617,048		17,732,699		63,710,812	
30	12/31/2032	5,051,917	2,030,548	9,116,931		16,199,397		66,902,830	
31	12/31/2033	4,189,098	1,860,181	8,616,815		14,666,095		70,286,369	
32	12/31/2034	3,326,280	1,689,814	8,116,699		13,132,793		73,872,921	
33	12/31/2035	2,463,461	1,519,447	7,616,582		11,599,490		77,674,665	

	J	K
1		
2		
3		Total
4		
5	Total	
6	O&M	
7	84,800	565,309
8	127,832	5,226,561
9	198,348	11,770,141
10	294,577	19,774,813
11	24,380,117	44,706,579
12	26,056,704	46,601,539
13	27,290,868	46,978,148
14	28,578,421	47,430,316
15	29,956,559	48,060,812
16	31,612,174	49,736,723
17	33,594,783	52,503,105
18	35,566,861	54,663,605
19	38,056,766	56,504,274
20	39,920,041	57,334,363
21	41,890,306	58,271,442
22	44,529,811	61,960,218
23	47,885,193	68,415,929
24	51,399,644	74,860,342
25	54,431,913	78,297,820
26	55,178,509	77,511,114
27	57,858,589	78,657,892
28	60,699,474	79,965,474
29	63,710,812	81,443,510
30	66,902,830	83,102,226
31	70,286,369	84,952,464
32	73,872,921	87,005,713
33	77,674,665	89,274,156

	A	B	C	D	E	F	G	H	I
34	12/31/2036	1,600,642	1,349,080	7,116,466		10,066,188		81,704,515	
35	12/31/2037	737,823	1,178,714	6,616,349		8,532,886		85,976,155	
36	2009 PVRR	153,383,226	14,945,173	24,389,184		192,717,582		354,316,774	
37									
38	Cubic Yards	9,542,500	6,072,500	9,542,500		25,157,500		25,157,500	
39									

	J	K
34	81,704,515	91,770,703
35	85,976,155	94,509,041
36	354,316,774	547,034,356
37		
38	25,157,500	25,157,500
39	$/CY (PVRR)	$ 21.74

	A	B	C	D	E	F	G	H
1		**Annual Revenue Requirements - Ghent Landfill - KU Project 30 with Beneficial Reuse -S**						
2								
3		Capital						O
4								
5								
6		Phase 1	Phase 2	Phase 3	Final Cap	Total	Non-Power	Power
7	12/31/2009	480,509	-	-		480,509		84,800
8	12/31/2010	3,553,056	-	-		3,553,056		127,832
9	12/31/2011	7,177,211	-	-		7,177,211		198,348
10	12/31/2012	13,654,069	-	-		13,654,069		294,577
11	12/31/2013	14,678,389	-	-		14,678,389		24,380,117
12	12/31/2014	15,152,993	-	-		15,152,993		26,056,704
13	12/31/2015	14,539,006	-	-		14,539,006		27,290,868
14	12/31/2016	13,883,815	-	-		13,883,815		28,578,421
15	12/31/2017	13,255,915	-	-		13,255,915		29,956,559
16	12/31/2018	12,653,016	-	-		12,653,016		31,612,174
17	12/31/2019	12,016,402	-	-		12,016,402		33,594,783
18	12/31/2020	11,379,788	-	-		11,379,788		35,566,861
19	12/31/2021	10,743,173	-	-		10,743,173		38,056,766
20	12/31/2022	10,106,559	-	-		10,106,559		39,920,041
21	12/31/2023	9,469,945	-	-		9,469,945		41,890,306
22	12/31/2024	8,833,331	-	-		8,833,331		44,529,811
23	12/31/2025	8,196,717	-	-		8,196,717		47,885,193
24	12/31/2026	7,560,103	52,720	-		7,612,823		51,399,644
25	12/31/2027	6,923,489	156,032	-		7,079,520		54,431,913
26	12/31/2028	6,286,875	993,170	-		7,280,044		55,178,509
27	12/31/2029	5,650,260	2,639,761	-		8,290,021		57,858,589
28	12/31/2030	5,013,646	3,691,001	-		8,704,647		60,699,474
29	12/31/2031	4,377,032	3,904,584	-		8,281,616		63,710,812
30	12/31/2032	3,740,418	3,734,217	-		7,474,635		66,902,830
31	12/31/2033	3,103,804	3,563,850	-		6,667,654		70,286,369
32	12/31/2034	2,467,190	3,393,483	-		5,860,673		73,872,921
33	12/31/2035	1,830,576	3,223,116	-		5,053,692		77,674,665

	I	J	K
1	**terling Ventures Mine**		
2			
3	&M		Total
4			
5	Beneficial	Total	
6	Reuse	O&M	
7	-	84,800	565,309
8	-	127,832	3,680,888
9	-	198,348	7,375,559
10	-	294,577	13,948,646
11	(489,556)	23,890,561	38,568,950
12	(495,467)	25,561,237	40,714,230
13	(436,289)	26,854,579	41,393,584
14	(387,511)	28,190,911	42,074,725
15	(348,918)	29,607,640	42,863,556
16	(501,636)	31,110,538	43,763,554
17	(873,325)	32,721,458	44,737,860
18	(1,101,031)	34,465,830	45,845,618
19	(1,114,736)	36,942,030	47,685,203
20	(1,025,754)	38,894,287	49,000,846
21	(931,433)	40,958,872	50,428,818
22	(1,382,478)	43,147,333	51,980,664
23	(2,392,499)	45,492,694	53,689,411
24	(3,382,211)	48,017,432	55,630,256
25	(3,728,255)	50,703,658	57,783,179
26	(3,378,832)	51,799,676	59,079,720
27	(2,798,637)	55,059,952	63,349,973
28	(2,349,913)	58,349,561	67,054,208
29	(2,101,930)	61,608,882	69,890,498
30	(1,942,577)	64,960,253	72,434,888
31	(1,773,662)	68,512,707	75,180,361
32	(1,594,613)	72,278,307	78,138,980
33	(1,404,821)	76,269,844	81,323,536

	A	B	C	D	E	F	G	H
34	12/31/2036	1,193,961	3,052,749	-		4,246,711		81,704,515
35	12/31/2037	557,347	2,882,383	-		3,439,730		85,976,155
36	2009 PVRR	111,212,472	5,355,077	-		116,567,550		354,316,774
37								
38	Cubic Yards	17,350,000	7,807,500			25,157,500		25,157,500
39								
40				Option 30 with				
41	CASE		Option 30	Benefical Reuse				
42	PVRR							
43	Capital		$ 192,717,582	$ 116,567,550				
44	O&M		354,316,774	343,867,798				
45	Total		$ 547,034,356	$ 460,435,348				
46	Delta to Least Cost		**$ 86,599,008**	Least Cost				
47								
48	Unit Cost (2009 PVRR $/CY)		$ 21.74	$ 18.30				

	I	J	K
34	(1,203,641)	80,500,873	84,747,584
35	(990,391)	84,985,764	88,425,494
36	(10,448,976)	343,867,798	460,435,348
37			
38		25,157,500	25,157,500
39		$/CY (PVRR)	$ 18.30
40			
41			
42			
43			
44			
45			
46			
47			
48			

	A	B	C	D	E	F	G	H
1	NOTE-This Table	**Annual Revenue Requirements - Ghent Landfill - KU Project 30 with Beneficial Reuse -Sterling Venture**						
2	Requires $9.00							
3	Price Inserted	Capital					O	
4	into cell D16 of							
5	PVRR Analysis							
6		Phase 1	Phase 2	Phase 3	Final Cap	Total	Non-Power	Power
7	12/31/2009	480,509	-	-		480,509		84,800
8	12/31/2010	3,553,056	-	-		3,553,056		127,832
9	12/31/2011	7,177,211	-	-		7,177,211		198,348
10	12/31/2012	13,654,069	-	-		13,654,069		294,577
11	12/31/2013	14,678,389	-	-		14,678,389		24,380,117
12	12/31/2014	15,152,993	-	-		15,152,993		26,056,704
13	12/31/2015	14,539,006	-	-		14,539,006		27,290,868
14	12/31/2016	13,883,815	-	-		13,883,815		28,578,421
15	12/31/2017	13,255,915	-	-		13,255,915		29,956,559
16	12/31/2018	12,653,016	-	-		12,653,016		31,612,174
17	12/31/2019	12,016,402	-	-		12,016,402		33,594,783
18	12/31/2020	11,379,788	-	-		11,379,788		35,566,861
19	12/31/2021	10,743,173	-	-		10,743,173		38,056,766
20	12/31/2022	10,106,559	-	-		10,106,559		39,920,041
21	12/31/2023	9,469,945	-	-		9,469,945		41,890,306
22	12/31/2024	8,833,331	-	-		8,833,331		44,529,811
23	12/31/2025	8,196,717	-	-		8,196,717		47,885,193
24	12/31/2026	7,560,103	52,720	-		7,612,823		51,399,644
25	12/31/2027	6,923,489	156,032	-		7,079,520		54,431,913
26	12/31/2028	6,286,875	993,170	-		7,280,044		55,178,509
27	12/31/2029	5,650,260	2,639,761	-		8,290,021		57,858,589
28	12/31/2030	5,013,646	3,691,001	-		8,704,647		60,699,474
29	12/31/2031	4,377,032	3,904,584	-		8,281,616		63,710,812
30	12/31/2032	3,740,418	3,734,217	-		7,474,635		66,902,830
31	12/31/2033	3,103,804	3,563,850	-		6,667,654		70,286,369
32	12/31/2034	2,467,190	3,393,483	-		5,860,673		73,872,921
33	12/31/2035	1,830,576	3,223,116	-		5,053,692		77,674,665

	I	J	K
1	**s Mine With Scrubber Stone Backhaul**		
2			
3	&M		Total
4			
5	Beneficial	Total	
6	Reuse	O&M	
7	-	84,800	565,309
8	-	127,832	3,680,888
9	-	198,348	7,375,559
10	-	294,577	13,948,646
11	(489,556)	23,890,561	38,568,950
12	(495,467)	25,561,237	40,714,230
13	(436,289)	26,854,579	41,393,584
14	(387,511)	28,190,911	42,074,725
15	(348,918)	29,607,640	42,863,556
16	(501,636)	31,110,538	43,763,554
17	(873,325)	32,721,458	44,737,860
18	(1,101,031)	34,465,830	45,845,618
19	(1,114,736)	36,942,030	47,685,203
20	(1,025,754)	38,894,287	49,000,846
21	(931,433)	40,958,872	50,428,818
22	(1,382,478)	43,147,333	51,980,664
23	(2,392,499)	45,492,694	53,689,411
24	(3,382,211)	48,017,432	55,630,256
25	(3,728,255)	50,703,658	57,783,179
26	(3,378,832)	51,799,676	59,079,720
27	(2,798,637)	55,059,952	63,349,973
28	(2,349,913)	58,349,561	67,054,208
29	(2,101,930)	61,608,882	69,890,498
30	(1,942,577)	64,960,253	72,434,888
31	(1,773,662)	68,512,707	75,180,361
32	(1,594,613)	72,278,307	78,138,980
33	(1,404,821)	76,269,844	81,323,536

	A	B	C	D	E	F	G	H
34	12/31/2036	1,193,961	3,052,749	-		4,246,711		81,704,515
35	12/31/2037	557,347	2,882,383	-		3,439,730		85,976,155
36	2009 PVRR	111,212,472	5,355,077	-		116,567,550		354,316,774
37								
38	Cubic Yards	17,350,000	7,807,500			25,157,500		25,157,500
39								
40				Option 30 with				
41	CASE		Option 30	Benefical Reuse				
42	PVRR							
43	Capital		$ 192,717,582	$ 116,567,550				
44	O&M		354,316,774	343,867,798				
45	Total		$ 547,034,356	$ 460,435,348				
46	Delta to Least Cost		**$ 86,599,008**	Least Cost				
47								
48	Unit Cost (2009 PVRR $/CY)		$ 21.74	$ 18.30				

	I	J	K
34	(1,203,641)	80,500,873	84,747,584
35	(990,391)	84,985,764	88,425,494
36	(10,448,976)	343,867,798	460,435,348
37			
38		25,157,500	25,157,500
39		$/CY (PVRR)	$ 18.30
40			
41			
42			
43			
44			
45			
46			
47			
48			

	A	B	C	D	E	F	G	H	I
1		Dry	Gypsum	Gypsum	Operation and	Phase II	Phase III	Total	Hauling
2		Gypsum	Fines	Dewatering	Maintenance	Construction	Construction	Capital Cost	Gypsum to
3		Handling	Project	Facility	Dry Gypsum				Landfill
4		System		Earthwork	Handling				
5					System				
6									
7	12/31/2010	$ 7,790,000	$ 6,300,000	$ -	$ -	$ -	$ -	$ 14,090,000	$ -
8	12/31/2011	$ 15,960,000	$ 6,300,000	$ 371,000	$ -	$ -	$ -	$ 22,631,000	$ -
9	12/30/2012	$ 13,050,000	$ -	$ -	$ -	$ -	$ -	$ 13,050,000	$ -
10	12/30/2013	$ -	$ -	$ -	$ 682,495	$ -	$ -	$ 682,495	$ 8,887,032
11	12/30/2014	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 9,420,254
12	12/30/2015	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 9,985,469
13	12/29/2016	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 10,584,598
14	12/29/2017	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 11,219,674
15	12/29/2018	$ -	$ -	$ -	$ -	$ 40,000,000	$ -	$ 40,000,000	$ 11,892,854
16	12/29/2019	$ -	$ -	$ -	$ -	$ 20,000,000	$ -	$ 20,000,000	$ 12,606,426
17	12/28/2020	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 13,362,811
18	12/28/2021	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 14,164,580
19	12/28/2022	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 15,014,455
20	12/28/2023	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 15,915,322
21	12/27/2024	$ -	$ -	$ -	$ -	$ -	$ 40,000,000	$ 40,000,000	$ 16,870,241
22	12/27/2025	$ -	$ -	$ -	$ -	$ -	$ 40,000,000	$ 40,000,000	$ 17,882,456
23	12/27/2026	$ -	$ -	$ -	$ -	$ -	$ 20,000,000	$ 20,000,000	$ 18,955,403
24	12/27/2027	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 20,092,727
25	12/26/2028	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 21,298,291
26	12/26/2029	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 22,576,188
27	12/26/2030	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 23,930,760
28	12/26/2031	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 25,366,605
29	12/25/2032	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 26,888,602
30	12/25/2033	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 28,501,918
31	12/25/2034	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 30,212,033
32	12/25/2035	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 32,024,755

	J	K	L	M	N	O
1	Total	Discount	Haul	Phase III		Discount
2	Cost Gypsum	Rate	Gypsum	Construction		Rate
3	to Ghent	6.70%	to Sterling			6.70%
4	Landfill					
5						
6		PVRR				PVRR
7	$ 14,090,000	$ 289,828,563	$ -	$ -	$ -	$ 252,258,836
8	$ 22,631,000		$ -	$ -	$ -	
9	$ 13,050,000		$ -	$ -	$ -	
10	$ 9,569,527		$ 11,236,000	$ -	$ 11,236,000	
11	$ 9,420,254		$ 11,910,160	$ -	$ 11,910,160	
12	$ 9,985,469		$ 12,624,770	$ -	$ 12,624,770	
13	$ 10,584,598		$ 13,382,256	$ -	$ 13,382,256	
14	$ 11,219,674		$ 14,185,191	$ -	$ 14,185,191	
15	$ 51,892,854		$ 15,036,303	$ -	$ 15,036,303	
16	$ 32,606,426		$ 15,938,481	$ -	$ 15,938,481	
17	$ 13,362,811		$ 16,894,790	$ -	$ 16,894,790	
18	$ 14,164,580		$ 17,908,477	$ -	$ 17,908,477	
19	$ 15,014,455		$ 18,982,986	$ -	$ 18,982,986	
20	$ 15,915,322		$ 20,121,965	$ -	$ 20,121,965	
21	$ 56,870,241		$ 21,329,283	$ 40,000,000	$ 61,329,283	
22	$ 57,882,456		$ 22,609,040	$ 40,000,000	$ 62,609,040	
23	$ 38,955,403		$ 23,965,582	$ 20,000,000	$ 43,965,582	
24	$ 20,092,727		$ 25,403,517	$ -	$ 25,403,517	
25	$ 21,298,291		$ 26,927,728	$ -	$ 26,927,728	
26	$ 22,576,188		$ 28,543,392	$ -	$ 28,543,392	
27	$ 23,930,760		$ 30,255,995	$ -	$ 30,255,995	
28	$ 25,366,605		$ 32,071,355	$ -	$ 32,071,355	
29	$ 26,888,602		$ 33,995,636	$ -	$ 33,995,636	
30	$ 28,501,918		$ 36,035,374	$ -	$ 36,035,374	
31	$ 30,212,033		$ 38,197,497	$ -	$ 38,197,497	
32	$ 32,024,755		$ 40,489,346	$ -	$ 40,489,346	

	A	B	C	D	E	F	G	H	I
33	12/24/2036	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 33,946,240
34	12/24/2037	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 35,983,014
35		$ 36,800,000	$ 12,600,000	$ 371,000	$ 682,495	$ 60,000,000	$ 100,000,000	$ 210,453,495	$ 487,582,709
36					$ 50,453,495		$ 160,000,000		

	J	K	L	M	N	O
33	$ 33,946,240		$ 42,918,707	$ -	$ 42,918,707	
34	$ 35,983,014		$ 45,493,830	$ -	$ 45,493,830	
35	$ 698,036,204		$ 616,457,657	$ 100,000,000	$ 716,457,657	
36						

	A	B	C	D
1	PHASE 1 ONLY			
2	Gypsum Disposal at Sterling Materials			
3				
4	Revenue Requirement			
5	Eligible Plant			
6	Less Gypsum Plant Requirements/Phase Delays			
7	Revised Eligible Plant			
8	Less Accumulated Depreciation			
9	Less Deferred Tax Balance			
10	Environmental Compliance Rate Base			
11	Rate of Return			
12		Assumed	Tons (1.155)	1,000,000
13		86.7500%	Cubic yards	867,500
14	Operating Expenses			
15	less Gypsum to On-site Landfill			
16	Gypsum to Sterling			**$ 10.50**
17	Net Operating			
18	Annual Depreciation			
19	Annual Property Tax Expense			
20	Total OE			
21				
22	Total E(m) Gypsum to Sterling			
23	Total E(m) - Project 30 (See below)			
24				
25	**Difference**		**PVRR**	**7.81%**
26	Date			
27				
28	Revenue Requirments Summary			
29	2009 Amended Plan			
30	Project 30		Ghent Landfill Phase I	
31	See Exhibit B			
32				

	E	F	G	H	I	J	K	L	M
1									
2		2009	2010	2011	2012	2013	2014	2015	2016
3									
4									
5		$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 202,578,976
6		$ -	$ (14,090,000)	$ (40,060,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)
7		$ 4,321,671	$ 32,388,846	$ 65,425,803	$ 124,467,356	$ 138,023,918	$ 148,831,953	$ 149,468,976	$ 149,468,976
8						$ (3,690,414)	$ (7,842,826)	$ (12,013,010)	$ (16,183,194)
9						$ (528,683)	$ (2,857,926)	$ (4,921,730)	$ (6,724,117)
10		$ 4,321,671	$ 32,388,846	$ 65,425,803	$ 124,467,356	$ 133,804,821	$ 138,131,202	$ 132,534,236	$ 126,561,665
11		11.1%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
12		$ 480,509	$ 3,553,056	$ 7,177,211	$ 13,654,069	$ 14,678,389	$ 15,152,993	$ 14,539,006	$ 13,883,815
13									
14		$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244
15						$ (9,569,527)	$ (10,143,699)	$ (10,752,321)	$ (11,397,460)
16						$ 10,500,000	$ 11,130,000	$ 11,797,800	$ 12,505,668
17		$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,933,781	$ 21,129,808	$ 22,397,596	$ 23,741,452
18						$ 3,690,414	$ 4,152,411	$ 4,170,184	$ 4,170,185
19			$ 6,483	$ 69,718	$ 158,229	$ 266,366	$ 279,017	$ 286,798	$ 279,274
20		$ 84,800	$ 127,832	$ 198,348	$ 294,577	$ 23,890,561	$ 25,561,237	$ 26,854,579	$ 28,190,911
21									
22	$ 452,873,199	$ 565,309	$ 3,680,888	$ 7,375,559	$ 13,948,646	$ 38,568,950	$ 40,714,230	$ 41,393,584	$ 42,074,725
23	$ 493,914,773	$ 565,309	$ 5,226,225	$ 11,769,378	$ 19,773,528	$ 44,705,239	$ 46,600,208	$ 46,976,843	$ 47,458,553
24									
25	**$ (41,041,573)**	$ -	$ (1,545,337)	$ (4,393,819)	$ (5,824,882)	$ (6,136,289)	$ (5,885,978)	$ (5,583,259)	$ (5,383,828)
26		12/31/2009	12/31/2010	12/31/2011	12/31/2012	12/31/2013	12/31/2014	12/31/2015	12/31/2016
27									
28									
29									
30									
31		2009	2010	2011	2012	2013	2014	2015	2016
32									**Start Phase II**

	N	O	P	Q	R	S	T	U
1								
2	2017	2018	2019	2020	2021	2022	2023	2024
3								
4								
5	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976
6	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)
7	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976
8	$ (20,353,378)	$ (24,523,563)	$ (28,693,747)	$ (32,863,931)	$ (37,034,115)	$ (41,204,299)	$ (45,374,483)	$ (49,544,667)
9	$ (8,277,719)	$ (9,603,427)	$ (11,236,471)	$ (12,869,515)	$ (14,502,559)	$ (16,135,603)	$ (17,768,648)	$ (19,401,692)
10	$ 120,837,879	$ 115,341,986	$ 109,538,758	$ 103,735,530	$ 97,932,302	$ 92,129,073	$ 86,325,845	$ 80,522,617
11	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
12	$ 13,255,915	$ 12,653,016	$ 12,016,402	$ 11,379,788	$ 10,743,173	$ 10,106,559	$ 9,469,945	$ 8,833,331
13				$ 27,051	$ 661,940			
14	$ 23,991,239	$ 25,430,713	$ 26,956,556	**$ 28,601,000**	**$ 30,979,000**	$ 32,837,740	$ 34,808,004	$ 36,896,485
15	$ (12,081,307)	$ (12,806,186)	$ (13,574,557)	$ (14,389,030)	$ (15,252,372)	$ (16,167,515)	$ (17,137,565)	$ (18,165,819)
16	$ 13,256,008	$ 14,051,369	$ 14,894,451	$ 15,788,118	$ 16,735,405	$ 17,739,529	$ 18,803,901	$ 19,932,135
17	$ 25,165,940	$ 26,675,896	$ 28,276,450	$ 30,000,087	$ 32,462,033	$ 34,409,755	$ 36,474,340	$ 38,662,800
18	$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,170,184
19	$ 270,848	$ 262,514	$ 262,514	$ 262,514	$ 262,514	$ 262,514	$ 262,514	$ 262,514
20	$ 29,606,972	$ 31,108,594	$ 32,709,148	$ 34,432,785	$ 36,894,731	$ 38,842,453	$ 40,907,038	$ 43,095,498
21								
22	$ 42,862,887	$ 43,761,610	$ 44,725,549	$ 45,812,573	$ 47,637,904	$ 48,949,012	$ 50,376,983	$ 51,928,829
23	$ 48,044,547	$ 48,653,648	$ 49,139,584	$ 49,921,210	$ 51,436,391	$ 52,432,312	$ 53,539,758	$ 54,765,419
24								
25	$ (5,181,660)	$ (4,892,038)	$ (4,414,035)	$ (4,108,637)	$ (3,798,487)	$ (3,483,300)	$ (3,162,775)	$ (2,836,590)
26	12/31/2017	12/31/2018	12/31/2019	12/31/2020	12/31/2021	12/31/2022	12/31/2023	12/31/2024
27								
28								
29								
30								
31	2017	2018	2019	2020	2021	2022	2023	2024
32								**Start Phase III**

	V	W	X	Y	Z	AA	AB	AC
1								
2	2025	2026	2027	2028	2029	2030	2031	2032
3		**Start Phase II**						
4								
5	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976
6	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)
7	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976
8	$ (53,714,851)	$ (57,885,036)	$ (62,055,220)	$ (66,225,404)	$ (70,395,588)	$ (74,565,772)	$ (78,735,956)	$ (82,906,140)
9	$ (21,034,736)	$ (22,667,780)	$ (24,300,824)	$ (25,933,868)	$ (27,566,912)	$ (29,199,956)	$ (30,833,000)	$ (32,466,045)
10	$ 74,719,389	$ 68,916,161	$ 63,112,932	$ 57,309,704	$ 51,506,476	$ 45,703,248	$ 39,900,019	$ 34,096,791
11	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
12	$ 8,196,717	$ 7,560,103	$ 6,923,489	$ 6,286,875	$ 5,650,260	$ 5,013,646	$ 4,377,032	$ 3,740,418
13				$ (1,912,962)				
14	$ 39,110,274	$ 41,456,890	$ 43,944,304	**$ 44,668,000**	$ 47,348,080	$ 50,188,965	$ 53,200,303	$ 56,392,321
15	$ (19,255,768)	$ (20,411,115)	$ (21,635,781)	$ (22,933,928)	$ (24,309,964)	$ (25,768,562)	$ (27,314,676)	$ (28,953,556)
16	$ 21,128,063	$ 22,395,747	$ 23,739,492	$ 25,163,861	$ 26,673,693	$ 28,274,114	$ 29,970,561	$ 31,768,795
17	$ 40,982,568	$ 43,441,522	$ 46,048,014	$ 46,897,933	$ 49,711,809	$ 52,694,517	$ 55,856,188	$ 59,207,559
18	$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,170,184
19	$ 262,514	$ 262,514	$ 262,514	$ 262,514	$ 262,514	$ 262,514	$ 262,514	$ 262,514
20	$ 45,415,266	$ 47,874,220	$ 50,480,712	$ 51,330,631	$ 54,144,507	$ 57,127,215	$ 60,288,886	$ 63,640,258
21								
22	$ 53,611,983	$ 55,434,323	$ 57,404,200	$ 57,617,505	$ 59,794,767	$ 62,140,862	$ 64,665,918	$ 67,380,676
23	$ 56,116,389	$ 57,600,187	$ 59,224,782	$ 59,085,659	$ 60,902,921	$ 62,880,987	$ 65,029,506	$ 67,358,705
24								
25	$ (2,504,406)	$ (2,165,864)	$ (1,820,581)	$ (1,468,154)	$ (1,108,153)	$ (740,125)	$ (363,587)	$ 21,971
26	12/31/2025	12/31/2026	12/31/2027	12/31/2028	12/31/2029	12/31/2030	12/31/2031	12/31/2032
27								
28								
29								
30								
31	2025	2026	2027	2028	2029	2030	2031	2032
32								

	AD	AE	AF	AG	AH	AI
1						
2	2033	2034	2035	2036	2037	
3						
4						
5	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	
6	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	
7	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976	
8	$ (87,076,324)	$ (91,246,509)	$ (95,416,693)	$ (99,586,877)	$ (103,757,061)	
9	$ (34,099,089)	$ (35,732,133)	$ (37,365,177)	$ (38,998,221)	$ (40,631,265)	
10	$ 28,293,563	$ 22,490,335	$ 16,687,107	$ 10,883,878	$ 5,080,650	
11	10.97%	10.97%	10.97%	10.97%	10.97%	
12	$ 3,103,804	$ 2,467,190	$ 1,830,576	$ 1,193,961	$ 557,347	$ 228,478,594
13						
14	$ 59,775,860	$ 63,362,412	$ 67,164,156	$ 71,194,006	$ 75,465,646	
15	$ (30,690,769)	$ (32,532,216)	$ (34,484,149)	$ (36,553,198)	$ (38,746,389)	
16	$ 33,674,922	$ 35,695,418	$ 37,837,143	$ 40,107,371	$ 42,513,814	
17	$ 62,760,013	$ 66,525,614	$ 70,517,151	$ 74,748,180	$ 79,233,071	
18	$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,170,184	
19	$ 262,514	$ 262,514	$ 262,514	$ 262,514	$ 262,514	
20	$ 67,192,711	$ 70,958,312	$ 74,949,849	$ 79,180,878	$ 83,665,769	
21						
22	$ 70,296,515	$ 73,425,502	$ 76,780,424	$ 80,374,839	$ 84,223,116	$ 1,427,527,870
23	$ 69,879,426	$ 72,603,158	$ 75,542,084	$ 78,709,115	$ 82,117,936	$ 1,498,059,007
24						
25	$ 417,089	$ 822,343	$ 1,238,340	$ 1,665,724	$ 2,105,179	**$ (70,531,137)**
26	12/31/2033	12/31/2034	12/31/2035	12/31/2036	12/31/2037	
27						$ (70,531,137)
28						
29						
30						
31	2033	2034	2035	2036	2037	
32						

	A	B	C	D
33	Revenue Requirement			
34	Eligible Plant			
35	Less Gypsum Plant Requirements/Phase Delays			
36	Revised Eligible Plant			
37	Less Accumulated Depreciation			
38	Less Deferred Tax Balance			
39	Environmental Compliance Rate Base			
40	Rate of Return			
41				
42				
43	Operating Expenses			
44	less Gypsum to On-site Landfill			
45	Gypsum to Sterling			
46	Net Operating			
47	Annual Depreciation			
48	Annual Property Tax Expense			
49	Total OE			
50				
51	Total E(m) Gypsum to On-site Landfill as Calculated			
52	Total E(m) Gypsum to On-site Landfill per KU			
53				
54	Calculation Check Difference			
55				
56				
57	Site E/F	Hauling cost of Ash 2.25 mile round trip		
58		Haul Road Maintenance		
59	Total			
60	Reduce by 50% for Site M			
61	**Difference**		**PVRR**	**7.81%**

	E	F	G	H	I	J	K	L	M
33									
34		$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 202,578,976
35		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
36		$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 202,578,976
37						$ (5,110,443)	$ (10,744,623)	$ (16,396,576)	$ (22,048,530)
38						$ (732,114)	$ (3,915,341)	$ (6,717,677)	$ (9,161,164)
39		$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 185,291,361	$ 187,281,989	$ 179,464,723	$ 171,369,282
40		11.1%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
41		$ 480,509	$ 5,098,729	$ 11,571,793	$ 19,480,236	$ 20,326,462	$ 20,544,834	$ 19,687,280	$ 18,799,210
42									
43		$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244
44						$ -	$ -	$ -	$ -
45						$ -	$ -	$ -	$ -
46		$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244
47						$ 5,110,443	$ 5,634,180	$ 5,651,953	$ 5,651,954
48			$ 6,483	$ 69,718	$ 158,229	$ 266,366	$ 279,017	$ 286,798	$ 279,274
49		$ 84,800	$ 127,832	$ 198,348	$ 294,577	$ 24,380,117	$ 26,056,704	$ 27,290,868	$ 28,564,471
50									
51		$ 565,309	$ 5,226,561	$ 11,770,141	$ 19,774,813	$ 44,706,579	$ 46,601,539	$ 46,978,148	$ 47,363,682
52		$ 565,309	$ 5,226,225	$ 11,769,378	$ 19,773,528	$ 44,705,239	$ 46,600,208	$ 46,976,843	$ 47,458,553
53									
54		$ -	$ 336	$ 763	$ 1,285	$ 1,340	$ 1,331	$ 1,305	$ (94,871)
55									
56									
57						$ 2,822,723	$ 2,992,086	$ 3,171,612	$ 3,361,908
58						$ 53,529	$ 56,741	$ 60,145	$ 63,754
59						$ 2,876,252	$ 3,048,827	$ 3,231,757	$ 3,425,662
60		$ -	$ -	$ -	$ -	$ 1,438,126	$ 1,524,414	$ 1,615,878	$ 1,712,831
61	**$ (21,865,903)**								

	N	O	P	Q	R	S	T	U
33								
34	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976
35	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
36	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976
37	$ (27,700,483)	$ (33,352,436)	$ (39,004,389)	$ (44,656,342)	$ (50,308,295)	$ (55,960,248)	$ (61,612,201)	$ (67,264,154)
38	$ (11,265,786)	$ (13,060,814)	$ (15,274,119)	$ (17,487,423)	$ (19,700,728)	$ (21,914,033)	$ (24,127,338)	$ (26,340,643)
39	$ 163,612,707	$ 156,165,726	$ 148,300,469	$ 140,435,211	$ 132,569,953	$ 124,704,695	$ 116,839,437	$ 108,974,180
40	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
41	$ 17,948,314	$ 17,131,380	$ 16,268,561	$ 15,405,743	$ 14,542,924	$ 13,680,105	$ 12,817,286	$ 11,954,467
42				$ 27,051	$ 661,940			
43	$ 23,991,239	$ 25,430,713	$ 26,956,556	**$ 28,601,000**	**$ 30,979,000**	$ 32,837,740	$ 34,808,004	$ 36,896,485
44	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
45	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
46	$ 23,991,239	$ 25,430,713	$ 26,956,556	$ 28,601,000	$ 30,979,000	$ 32,837,740	$ 34,808,004	$ 36,896,485
47	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953
48	$ 270,848	$ 262,514	$ 262,514	$ 262,514	$ 262,514	$ 262,514	$ 262,514	$ 262,514
49	$ 29,914,040	$ 31,345,180	$ 32,871,023	$ 34,515,467	$ 36,893,467	$ 38,752,207	$ 40,722,471	$ 42,810,952
50								
51	$ 47,862,354	$ 48,476,560	$ 49,139,584	$ 49,921,210	$ 51,436,391	$ 52,432,312	$ 53,539,758	$ 54,765,419
52	$ 48,044,547	$ 48,653,648						
53								
54	$ (182,193)	$ (177,088)						
55								
56								
57	$ 3,563,623	$ 3,777,440	$ 4,004,087	$ 4,244,332	$ 4,498,992	$ 4,768,931	$ 5,055,067	$ 5,358,371
58	$ 67,579	$ 71,634	$ 75,932	$ 80,488	$ 85,317	$ 90,436	$ 95,862	$ 101,614
59	$ 3,631,202	$ 3,849,074	$ 4,080,018	$ 4,324,820	$ 4,584,309	$ 4,859,367	$ 5,150,929	$ 5,459,985
60	$ 1,815,601	$ 1,924,537	$ 2,040,009	$ 2,162,410	$ 2,292,154	$ 2,429,684	$ 2,575,465	$ 2,729,993
61								

	V	W	X	Y	Z	AA	AB	AC
33								
34	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976
35	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
36	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976
37	$ (72,916,107)	$ (78,568,060)	$ (84,220,013)	$ (89,871,966)	$ (95,523,919)	$ (101,175,872)	$ (106,827,825)	$ (112,479,778)
38	$ (28,553,947)	$ (30,767,252)	$ (32,980,557)	$ (35,193,862)	$ (37,407,167)	$ (39,620,471)	$ (41,833,776)	$ (44,047,081)
39	$ 101,108,922	$ 93,243,664	$ 85,378,406	$ 77,513,148	$ 69,647,890	$ 61,782,633	$ 53,917,375	$ 46,052,117
40	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
41	$ 11,091,649	$ 10,228,830	$ 9,366,011	$ 8,503,192	$ 7,640,374	$ 6,777,555	$ 5,914,736	$ 5,051,917
42				$ (1,912,962)				
43	$ 39,110,274	$ 41,456,890	$ 43,944,304	**$ 44,668,000**	$ 47,348,080	$ 50,188,965	$ 53,200,303	$ 56,392,321
44	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
45	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
46	$ 39,110,274	$ 41,456,890	$ 43,944,304	$ 44,668,000	$ 47,348,080	$ 50,188,965	$ 53,200,303	$ 56,392,321
47	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953
48	$ 262,514	$ 262,514	$ 262,514	$ 262,514	$ 262,514	$ 262,514	$ 262,514	$ 262,514
49	$ 45,024,741	$ 47,371,357	$ 49,858,771	$ 50,582,467	$ 53,262,547	$ 56,103,432	$ 59,114,770	$ 62,306,788
50								
51	$ 56,116,389	$ 57,600,187	$ 59,224,782	$ 59,085,659	$ 60,902,921	$ 62,880,987	$ 65,029,506	$ 67,358,705
52								
53								
54								
55								
56								
57	$ 5,679,873	$ 6,020,666	$ 6,381,906	$ 6,764,820	$ 7,170,709	$ 7,600,952	$ 8,057,009	$ 8,540,429
58	$ 107,711	$ 114,174	$ 121,024	$ 128,285	$ 135,982	$ 144,141	$ 152,790	$ 161,957
59	$ 5,787,584	$ 6,134,839	$ 6,502,930	$ 6,893,105	$ 7,306,692	$ 7,745,093	$ 8,209,799	$ 8,702,387
60	$ 2,893,792	$ 3,067,420	$ 3,251,465	$ 3,446,553	$ 3,653,346	$ 3,872,547	$ 4,104,899	$ 4,351,193
61								

	AD	AE	AF	AG	AH	AI
33						$ -
34	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	
35	$ -	$ -	$ -	$ -	$ -	
36	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	
37	$ (118,131,731)	$ (123,783,684)	$ (129,435,637)	$ (135,087,590)	$ (140,739,543)	
38	$ (46,260,386)	$ (48,473,691)	$ (50,686,995)	$ (52,900,300)	$ (55,113,605)	
39	$ 38,186,859	$ 30,321,601	$ 22,456,344	$ 14,591,086	$ 6,725,828	
40	10.97%	10.97%	10.97%	10.97%	10.97%	
41	$ 4,189,098	$ 3,326,280	$ 2,463,461	$ 1,600,642	$ 737,823	$ 312,629,403
42						
43	$ 59,775,860	$ 63,362,412	$ 67,164,156	$ 71,194,006	$ 75,465,646	
44	$ -	$ -	$ -	$ -	$ -	
45	$ -	$ -	$ -	$ -	$ -	
46	$ 59,775,860	$ 63,362,412	$ 67,164,156	$ 71,194,006	$ 75,465,646	
47	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953	
48	$ 262,514	$ 262,514	$ 262,514	$ 262,514	$ 262,514	
49	$ 65,690,327	$ 69,276,879	$ 73,078,623	$ 77,108,473	$ 81,380,113	
50						
51	$ 69,879,426	$ 72,603,158	$ 75,542,084	$ 78,709,115	$ 82,117,936	
52						
53						
54						
55						
56						
57	$ 9,052,855	$ 9,596,026	$ 10,171,788	$ 10,782,095	$ 11,429,021	
58	$ 171,675	$ 181,975	$ 192,894	$ 204,467	$ 216,735	
59	$ 9,224,530	$ 9,778,002	$ 10,364,682	$ 10,986,563	$ 11,645,756	
60	$ 4,612,265	$ 4,889,001	$ 5,182,341	$ 5,493,281	$ 5,822,878	
61						

Cell: D16
Comment: John Walters:
Insert $9.00 for Limestone Backhaul calculation

	A	B	C	D
1	Revenue Requirments Summary			
2	Gypsum Disposal at Sterling Materials			
3				
4	Revenue Requirement			
5	Eligible Plant			
6	Less Gypsum Plant Requirements			
7	Revised Eligible Plant			
8	Less Accumulated Depreciation			
9	Less Deferred Tax Balance			
10	Environmental Compliance Rate Base			
11	Rate of Return			
12		Assumed	Tons (1.155)	1,000,000
13		86.7500%	Cubic yards	867,500
14	Operating Expenses			
15	less Gypsum to On-site Landfill			
16	Gypsum to Sterling			**$ 10.50**
17	Net Operating			
18	Annual Depreciation			
19	Annual Property Tax Expense			
20	Total OE			
21				
22	Total E(m) Gypsum to Sterling			
23	Total E(m) - Project 30 (See below)			
24				
25	**Difference**		**PVRR**	**7.81%**
26	Date			
27				
28	Revenue Requirments Summary			
29	2009 Amended Plan			
30	Project 30		Ghent Landfill Phase I	
31	See Exhibit B			
32				
33	Revenue Requirement			

	E	F	G	H	I	J	K	L
1								
2		2009	2010	2011	2012	2013	2014	2015
3								
4								
5		$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976
6		$ -	$ (14,090,000)	$ (40,060,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)
7		$ 4,321,671	$ 32,388,846	$ 65,425,803	$ 124,467,356	$ 138,023,918	$ 148,831,953	$ 149,468,976
8						$ (3,690,414)	$ (7,842,826)	$ (12,013,010)
9						$ (528,683)	$ (2,857,926)	$ (4,921,730)
10		$ 4,321,671	$ 32,388,846	$ 65,425,803	$ 124,467,356	$ 133,804,821	$ 138,131,202	$ 132,534,236
11		11.1%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
12		$ 480,509	$ 3,553,056	$ 7,177,211	$ 13,654,069	$ 14,678,389	$ 15,152,993	$ 14,539,006
13								
14		$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117
15						$ (9,569,527)	$ (10,143,699)	$ (10,752,321)
16						$ 10,500,000	$ 11,130,000	$ 11,797,800
17		$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,933,781	$ 21,129,808	$ 22,397,596
18						$ 3,690,414	$ 4,152,411	$ 4,170,184
19			$ 6,483	$ 69,718	$ 158,229	$ 266,366	$ 279,017	$ 286,798
20		$ 84,800	$ 127,832	$ 198,348	$ 294,577	$ 23,890,561	$ 25,561,237	$ 26,854,579
21								
22	$ 460,107,063	$ 565,309	$ 3,680,888	$ 7,375,559	$ 13,948,646	$ 38,568,950	$ 40,714,230	$ 41,393,584
23	$ 513,750,912	$ 565,309	$ 5,226,225	$ 11,769,378	$ 19,773,528	$ 44,705,239	$ 46,600,208	$ 46,976,843
24								
25	**$ (53,643,850)**	$ -	$ (1,545,337)	$ (4,393,819)	$ (5,824,882)	$ (6,136,289)	$ (5,885,978)	$ (5,583,259)
26		12/31/2009	12/31/2010	12/31/2011	12/31/2012	12/31/2013	12/31/2014	12/31/2015
27								
28								
29								
30								
31		2009	2010	2011	2012	2013	2014	2015
32								
33								

	M	N	O	P	Q	R	S	T
1								
2	2016	2017	2018	2019	2020	2021	2022	2023
3								
4								
5	$ 203,078,976	$ 204,078,976	$ 212,078,976	$ 228,078,976	$ 239,078,976	$ 242,578,976	$ 242,578,976	$ 242,578,976
6	$ (53,610,000)	$ (54,610,000)	$ (62,610,000)	$ (78,610,000)	$ (89,610,000)	$ (93,110,000)	$ (93,110,000)	$ (93,110,000)
7	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976	$ 149,468,976
8	$ (16,183,194)	$ (20,353,378)	$ (24,523,563)	$ (28,693,747)	$ (32,863,931)	$ (37,034,115)	$ (41,204,299)	$ (45,374,483)
9	$ (6,724,117)	$ (8,277,719)	$ (9,603,427)	$ (11,236,471)	$ (12,869,515)	$ (14,502,559)	$ (16,135,603)	$ (17,768,648)
10	$ 126,561,665	$ 120,837,879	$ 115,341,986	$ 109,538,758	$ 103,735,530	$ 97,932,302	$ 92,129,073	$ 86,325,845
11	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
12	$ 13,883,815	$ 13,255,915	$ 12,653,016	$ 12,016,402	$ 11,379,788	$ 10,743,173	$ 10,106,559	$ 9,469,945
13					$ 27,051	$ 661,940		
14	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,556	**$ 28,601,000**	**$ 30,979,000**	$ 32,837,740	$ 34,808,004
15	$ (11,397,460)	$ (12,081,307)	$ (12,806,186)	$ (13,574,557)	$ (14,389,030)	$ (15,252,372)	$ (16,167,515)	$ (17,137,565)
16	$ 12,505,668	$ 13,256,008	$ 14,051,369	$ 14,894,451	$ 15,788,118	$ 16,735,405	$ 17,739,529	$ 18,803,901
17	$ 23,741,452	$ 25,165,940	$ 26,675,896	$ 28,276,450	$ 30,000,087	$ 32,462,033	$ 34,409,755	$ 36,474,340
18	$ 4,170,185	$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,170,184	$ 4,170,184
19	$ 279,274	$ 271,517	$ 264,458	$ 274,825	$ 295,558	$ 309,813	$ 314,348	$ 314,348
20	$ 28,190,911	$ 29,607,640	$ 31,110,538	$ 32,721,458	$ 34,465,830	$ 36,942,030	$ 38,894,287	$ 40,958,872
21								
22	$ 42,074,725	$ 42,863,556	$ 43,763,554	$ 44,737,860	$ 45,845,618	$ 47,685,203	$ 49,000,846	$ 50,428,818
23	$ 47,458,553	$ 48,044,547	$ 48,653,648	$ 52,503,105	$ 54,663,605	$ 56,504,274	$ 57,334,363	$ 58,271,442
24								
25	$ (5,383,828)	$ (5,180,991)	$ (4,890,094)	$ (7,765,245)	$ (8,817,987)	$ (8,819,070)	$ (8,333,517)	$ (7,842,625)
26	12/31/2016	12/31/2017	12/31/2018	12/31/2019	12/31/2020	12/31/2021	12/31/2022	12/31/2023
27								
28								
29								
30								
31	2016	2017	2018	2019	2020	2021	2022	2023
32	**Start Phase II**							
33	$ 500,000	$ 1,000,000	$ 8,000,000	$ 16,000,000	$ 11,000,000	$ 3,500,000		

	U	V	W	X	Y	Z	AA	AB
1								
2	2024	2025	2026	2027	2028	2029	2030	2031
3			**Start Phase II**					
4			$ 500,000	$ 1,000,000	$ 8,000,000	$ 16,000,000	$ 11,000,000	$ 3,500,000
5	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976
6	$ (93,110,000)	$ (93,110,000)	$ (92,610,000)	$ (91,610,000)	$ (83,610,000)	$ (67,610,000)	$ (56,610,000)	$ (53,110,000)
7	$ 149,468,976	$ 149,468,976	$ 149,968,976	$ 150,968,976	$ 158,968,976	$ 174,968,976	$ 185,968,976	$ 189,468,976
8	$ (49,544,667)	$ (53,714,851)	$ (57,898,986)	$ (62,111,020)	$ (66,546,254)	$ (71,427,888)	$ (76,616,422)	$ (81,902,606)
9	$ (19,401,692)	$ (21,034,736)	$ (22,673,243)	$ (24,322,675)	$ (26,059,513)	$ (27,971,161)	$ (30,002,991)	$ (32,073,060)
10	$ 80,522,617	$ 74,719,389	$ 69,396,748	$ 64,535,281	$ 66,363,209	$ 75,569,927	$ 79,349,563	$ 75,493,310
11	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
12	$ 8,833,331	$ 8,196,717	$ 7,612,823	$ 7,079,520	$ 7,280,044	$ 8,290,021	$ 8,704,647	$ 8,281,616
13					$ (1,912,962)			
14	$ 36,896,485	$ 39,110,274	$ 41,456,890	$ 43,944,304	**$ 44,668,000**	$ 47,348,080	$ 50,188,965	$ 53,200,303
15	$ (18,165,819)	$ (19,255,768)	$ (20,411,115)	$ (21,635,781)	$ (22,933,928)	$ (24,309,964)	$ (25,768,562)	$ (27,314,676)
16	$ 19,932,135	$ 21,128,063	$ 22,395,747	$ 23,739,492	$ 25,163,861	$ 26,673,693	$ 28,274,114	$ 29,970,561
17	$ 38,662,800	$ 40,982,568	$ 43,441,522	$ 46,048,014	$ 46,897,933	$ 49,711,809	$ 52,694,517	$ 55,856,188
18	$ 4,170,184	$ 4,170,184	$ 4,184,134	$ 4,212,034	$ 4,435,234	$ 4,881,634	$ 5,188,534	$ 5,286,184
19	$ 314,348	$ 314,348	$ 314,348	$ 314,348	$ 314,348	$ 314,348	$ 314,348	$ 314,348
20	$ 43,147,333	$ 45,467,101	$ 47,940,005	$ 50,574,396	$ 51,647,515	$ 54,907,791	$ 58,197,400	$ 61,456,721
21								
22	$ 51,980,664	$ 53,663,818	$ 55,552,828	$ 57,653,917	$ 58,927,559	$ 63,197,812	$ 66,902,047	$ 69,738,337
23	$ 59,326,737	$ 60,507,340	$ 61,820,771	$ 63,274,999	$ 62,965,509	$ 64,612,404	$ 66,420,103	$ 68,398,255
24								
25	$ (7,346,073)	$ (6,843,522)	$ (6,267,943)	$ (5,621,082)	$ (4,037,950)	$ (1,414,592)	$ 481,944	$ 1,340,082
26	12/31/2024	12/31/2025	12/31/2026	12/31/2027	12/31/2028	12/31/2029	12/31/2030	12/31/2031
27								
28								
29								
30								
31	2024	2025	2026	2027	2028	2029	2030	2031
32	**Start Phase III**							
33								

	AC	AD	AE	AF	AG	AH	AI
1							
2	2032	2033	2034	2035	2036	2037	
3							
4							
5	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	
6	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	$ (53,110,000)	
7	$ 189,468,976	$ 189,468,976	$ 189,468,976	$ 189,468,976	$ 189,468,976	$ 189,468,976	
8	$ (87,188,790)	$ (92,474,974)	$ (97,761,158)	$ (103,047,342)	$ (108,333,526)	$ (113,619,710)	
9	$ (34,143,130)	$ (36,213,200)	$ (38,283,269)	$ (40,353,339)	$ (42,423,409)	$ (44,493,479)	
10	$ 68,137,056	$ 60,780,802	$ 53,424,548	$ 46,068,295	$ 38,712,041	$ 31,355,787	
11	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	
12	$ 7,474,635	$ 6,667,654	$ 5,860,673	$ 5,053,692	$ 4,246,711	$ 3,439,730	$ 259,765,660
13							
14	$ 56,392,321	$ 59,775,860	$ 63,362,412	$ 67,164,156	$ 71,194,006	$ 75,465,646	
15	$ (28,953,556)	$ (30,690,769)	$ (32,532,216)	$ (34,484,149)	$ (36,553,198)	$ (38,746,389)	
16	$ 31,768,795	$ 33,674,922	$ 35,695,418	$ 37,837,143	$ 40,107,371	$ 42,513,814	
17	$ 59,207,559	$ 62,760,013	$ 66,525,614	$ 70,517,151	$ 74,748,180	$ 79,233,071	
18	$ 5,286,184	$ 5,286,184	$ 5,286,184	$ 5,286,184	$ 5,286,184	$ 5,286,184	
19	$ 314,348	$ 314,348	$ 314,348	$ 314,348	$ 314,348	$ 314,348	
20	$ 64,808,092	$ 68,360,546	$ 72,126,146	$ 76,117,683	$ 80,348,712	$ 84,833,603	
21							
22	$ 72,282,727	$ 75,028,199	$ 77,986,819	$ 81,171,375	$ 84,595,423	$ 88,273,333	$ 1,469,602,202
23	$ 70,557,087	$ 72,907,441	$ 75,460,807	$ 78,229,366	$ 81,226,030	$ 84,464,484	$ 1,569,221,600
24							
25	$ 1,725,639	$ 2,120,758	$ 2,526,012	$ 2,942,009	$ 3,369,393	$ 3,808,848	**$ (99,619,398)**
26	12/31/2032	12/31/2033	12/31/2034	12/31/2035	12/31/2036	12/31/2037	
27							$ (99,619,398)
28							
29							
30							
31	2032	2033	2034	2035	2036	2037	
32							
33							$ -

	A	B	C	D
34	Eligible Plant			
35	Less Gypsum Plant Requirements			
36	Revised Eligible Plant			
37	Less Accumulated Depreciation			
38	Less Deferred Tax Balance			
39	Environmental Compliance Rate Base			
40	Rate of Return			
41				
42				
43	Operating Expenses			
44	less Gypsum to On-site Landfill			
45	Gypsum to Sterling			
46	Net Operating			
47	Annual Depreciation			
48	Annual Property Tax Expense			
49	Total OE			
50				
51	Total E(m) Gypsum to On-site Landfill as Calculated			
52	Total E(m) Gypsum to On-site Landfill per KU			
53				
54	Calculation Check Difference			
55				
56				
57	Site E/F	Hauling cost of Ash 2.25 mile round trip		
58		Haul Road Maintenance		
59	Total			
60	Reduce by 50% for Site M			
61	**Difference**		**PVRR**	**7.81%**

	E	F	G	H	I	J	K	L
34		$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976
35		$ -	$ -	$ -	$ -	$ -	$ -	$ -
36		$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976
37						$ (5,110,443)	$ (10,744,623)	$ (16,396,576)
38						$ (732,114)	$ (3,915,341)	$ (6,717,677)
39		$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 185,291,361	$ 187,281,989	$ 179,464,723
40		11.1%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
41		$ 480,509	$ 5,098,729	$ 11,571,793	$ 19,480,236	$ 20,326,462	$ 20,544,834	$ 19,687,280
42								
43		$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117
44						$ -	$ -	$ -
45						$ -	$ -	$ -
46		$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117
47						$ 5,110,443	$ 5,634,180	$ 5,651,953
48			$ 6,483	$ 69,718	$ 158,229	$ 266,366	$ 279,017	$ 286,798
49		$ 84,800	$ 127,832	$ 198,348	$ 294,577	$ 24,380,117	$ 26,056,704	$ 27,290,868
50								
51		$ 565,309	$ 5,226,561	$ 11,770,141	$ 19,774,813	$ 44,706,579	$ 46,601,539	$ 46,978,148
52		$ 565,309	$ 5,226,225	$ 11,769,378	$ 19,773,528	$ 44,705,239	$ 46,600,208	$ 46,976,843
53								
54		$ -	$ 336	$ 763	$ 1,285	$ 1,340	$ 1,331	$ 1,305
55								
56								
57						$ 2,822,723	$ 2,992,086	$ 3,171,612
58						$ 53,529	$ 56,741	$ 60,145
59						$ 2,876,252	$ 3,048,827	$ 3,231,757
60		$ -	$ -	$ -	$ -	$ 1,438,126	$ 1,524,414	$ 1,615,878
61	**$ (21,865,903)**							

	M	N	O	P	Q	R	S	T
34	$ 203,078,976	$ 204,078,976	$ 212,078,976	$ 228,078,976	$ 239,078,976	$ 242,578,976	$ 242,578,976	$ 242,578,976
35	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
36	$ 203,078,976	$ 204,078,976	$ 212,078,976	$ 228,078,976	$ 239,078,976	$ 242,578,976	$ 242,578,976	$ 242,578,976
37	$ (22,062,480)	$ (27,756,283)	$ (33,673,286)	$ (40,036,689)	$ (46,706,992)	$ (53,474,945)	$ (60,242,897)	$ (67,010,850)
38	$ (9,166,960)	$ (11,288,480)	$ (13,186,459)	$ (15,678,367)	$ (18,290,458)	$ (20,940,788)	$ (23,591,119)	$ (26,241,449)
39	$ 171,849,536	$ 165,034,213	$ 165,219,232	$ 172,363,920	$ 174,081,526	$ 168,163,243	$ 158,744,960	$ 149,326,677
40	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
41	$ 18,851,894	$ 18,104,253	$ 18,124,550	$ 18,908,322	$ 19,096,743	$ 18,447,508	$ 17,414,322	$ 16,381,136
42					$ 27,051	$ 661,940		
43	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,556	**$ 28,601,000**	**$ 30,979,000**	$ 32,837,740	$ 34,808,004
44	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
45	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
46	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,556	$ 28,601,000	$ 30,979,000	$ 32,837,740	$ 34,808,004
47	$ 5,665,904	$ 5,693,803	$ 5,917,003	$ 6,363,403	$ 6,670,303	$ 6,767,953	$ 6,767,953	$ 6,767,953
48	$ 279,274	$ 271,517	$ 264,458	$ 274,825	$ 295,558	$ 309,813	$ 314,348	$ 314,348
49	$ 28,578,421	$ 29,956,559	$ 31,612,174	$ 33,594,783	$ 35,566,861	$ 38,056,766	$ 39,920,041	$ 41,890,306
50								
51	$ 47,430,316	$ 48,060,812	$ 49,736,723	$ 52,503,105	$ 54,663,605	$ 56,504,274	$ 57,334,363	$ 58,271,442
52	$ 47,458,553	$ 48,044,547	$ 48,653,648					
53								
54	$ (28,237)	$ 16,265	$ 1,083,075					
55								
56								
57	$ 3,361,908	$ 3,563,623	$ 3,777,440	$ 4,004,087	$ 4,244,332	$ 4,498,992	$ 4,768,931	$ 5,055,067
58	$ 63,754	$ 67,579	$ 71,634	$ 75,932	$ 80,488	$ 85,317	$ 90,436	$ 95,862
59	$ 3,425,662	$ 3,631,202	$ 3,849,074	$ 4,080,018	$ 4,324,820	$ 4,584,309	$ 4,859,367	$ 5,150,929
60	$ 1,712,831	$ 1,815,601	$ 1,924,537	$ 2,040,009	$ 2,162,410	$ 2,292,154	$ 2,429,684	$ 2,575,465
61								

	U	V	W	X	Y	Z	AA	AB
34	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976
35	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
36	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976
37	$ (73,778,803)	$ (80,546,756)	$ (87,314,709)	$ (94,082,662)	$ (100,850,615)	$ (107,618,568)	$ (114,386,521)	$ (121,154,474)
38	$ (28,891,779)	$ (31,542,110)	$ (34,192,440)	$ (36,842,770)	$ (39,493,101)	$ (42,143,431)	$ (44,793,762)	$ (47,444,092)
39	$ 139,908,393	$ 130,490,110	$ 121,071,827	$ 111,653,543	$ 102,235,260	$ 92,816,977	$ 83,398,693	$ 73,980,410
40	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
41	$ 15,347,951	$ 14,314,765	$ 13,281,579	$ 12,248,394	$ 11,215,208	$ 10,182,022	$ 9,148,837	$ 8,115,651
42					$ (1,912,962)			
43	$ 36,896,485	$ 39,110,274	$ 41,456,890	$ 43,944,304	**$ 44,668,000**	$ 47,348,080	$ 50,188,965	$ 53,200,303
44	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
45	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
46	$ 36,896,485	$ 39,110,274	$ 41,456,890	$ 43,944,304	$ 44,668,000	$ 47,348,080	$ 50,188,965	$ 53,200,303
47	$ 6,767,953	$ 6,767,953	$ 6,767,953	$ 6,767,953	$ 6,767,953	$ 6,767,953	$ 6,767,953	$ 6,767,953
48	$ 314,348	$ 314,348	$ 314,348	$ 314,348	$ 314,348	$ 314,348	$ 314,348	$ 314,348
49	$ 43,978,786	$ 46,192,575	$ 48,539,191	$ 51,026,605	$ 51,750,301	$ 54,430,381	$ 57,271,266	$ 60,282,604
50								
51	$ 59,326,737	$ 60,507,340	$ 61,820,771	$ 63,274,999	$ 62,965,509	$ 64,612,404	$ 66,420,103	$ 68,398,255
52								
53								
54								
55								
56								
57	$ 5,358,371	$ 5,679,873	$ 6,020,666	$ 6,381,906	$ 6,764,820	$ 7,170,709	$ 7,600,952	$ 8,057,009
58	$ 101,614	$ 107,711	$ 114,174	$ 121,024	$ 128,285	$ 135,982	$ 144,141	$ 152,790
59	$ 5,459,985	$ 5,787,584	$ 6,134,839	$ 6,502,930	$ 6,893,105	$ 7,306,692	$ 7,745,093	$ 8,209,799
60	$ 2,729,993	$ 2,893,792	$ 3,067,420	$ 3,251,465	$ 3,446,553	$ 3,653,346	$ 3,872,547	$ 4,104,899
61								

	AC	AD	AE	AF	AG	AH	AI
34	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	
35	$ -	$ -	$ -	$ -	$ -	$ -	
36	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	
37	$ (127,922,427)	$ (134,690,380)	$ (141,458,333)	$ (148,226,286)	$ (154,994,239)	$ (161,762,192)	
38	$ (50,094,422)	$ (52,744,753)	$ (55,395,083)	$ (58,045,413)	$ (60,695,744)	$ (63,346,074)	
39	$ 64,562,127	$ 55,143,844	$ 45,725,560	$ 36,307,277	$ 26,888,994	$ 17,470,710	
40	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	
41	$ 7,082,465	$ 6,049,280	$ 5,016,094	$ 3,982,908	$ 2,949,723	$ 1,916,537	$ 363,369,986
42							
43	$ 56,392,321	$ 59,775,860	$ 63,362,412	$ 67,164,156	$ 71,194,006	$ 75,465,646	
44	$ -	$ -	$ -	$ -	$ -	$ -	
45	$ -	$ -	$ -	$ -	$ -	$ -	
46	$ 56,392,321	$ 59,775,860	$ 63,362,412	$ 67,164,156	$ 71,194,006	$ 75,465,646	
47	$ 6,767,953	$ 6,767,953	$ 6,767,953	$ 6,767,953	$ 6,767,953	$ 6,767,953	
48	$ 314,348	$ 314,348	$ 314,348	$ 314,348	$ 314,348	$ 314,348	
49	$ 63,474,622	$ 66,858,161	$ 70,444,713	$ 74,246,458	$ 78,276,307	$ 82,547,947	
50							
51	$ 70,557,087	$ 72,907,441	$ 75,460,807	$ 78,229,366	$ 81,226,030	$ 84,464,484	
52							
53							
54							
55							
56							
57	$ 8,540,429	$ 9,052,855	$ 9,596,026	$ 10,171,788	$ 10,782,095	$ 11,429,021	
58	$ 161,957	$ 171,675	$ 181,975	$ 192,894	$ 204,467	$ 216,735	
59	$ 8,702,387	$ 9,224,530	$ 9,778,002	$ 10,364,682	$ 10,986,563	$ 11,645,756	
60	$ 4,351,193	$ 4,612,265	$ 4,889,001	$ 5,182,341	$ 5,493,281	$ 5,822,878	
61							

Cell: D16
Comment: John Walters:
Insert $9.00 for Limestone Backhaul calculation

	A	B	C	D	E	F
1	Revenue Requirments Summary					
2	2009 Amended Plan - Offsite Gypsum Disposal					
3						
4	Project 30		Ghent Landfill Phase I			2009
5						
6	Revenue Requirement					
7	Eligible Plant					$ 4,321,671
8	Less Gypsum Plant					$ -
9	Revised Eligible Plant					$ 4,321,671
10	Less Accumulated Depreciation					
11	Less Deferred Tax Balance					
12	Environmental Compliance Rate Base					$ 4,321,671
13	Rate of Return					11.1%
14						$ 480,509
15						
16	Operating Expenses					$ 84,800
17	less Gypsum to On-site Landfill					
18	Gypsum to Sterling (800,000 tons)					
19	Net Operating					$ 84,800
20	Annual Depreciation					
21	Annual Property Tax Expense					
22	Total OE					$ 84,800
23						
24	Total E(m) Gypsum to Sterling					$ 565,309
25	Total E(m) Gypsum to On-site Landfill					$ 565,309
26						
27	Difference					$ -

	G	H	I	J	K	L	M	N
1								
2								
3								
4	2010	2011	2012	2013	2014	2015	2016	2017
5								
6								
7	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 203,254,220	$ 203,969,979
8	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
9	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 203,254,220	$ 203,969,979
10				$ (5,110,443)	$ (10,744,623)	$ (16,396,576)	$ (22,067,369)	$ (27,758,131)
11				$ (732,114)	$ (3,915,341)	$ (6,717,677)	$ (9,168,992)	$ (11,289,232)
12	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 185,291,361	$ 187,281,989	$ 179,464,723	$ 172,017,859	$ 164,922,616
13	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
14	$ 5,098,729	$ 11,571,793	$ 19,480,236	$ 20,326,462	$ 20,544,834	$ 19,687,280	$ 18,870,359	$ 18,092,011
15								
16	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244	$ 23,991,239
17				$ -	$ -	$ -	$ -	$ -
18				$ -	$ -	$ -	$ -	$ -
19	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244	$ 23,991,239
20				$ 5,110,443	$ 5,634,180	$ 5,651,953	$ 5,670,793	$ 5,690,762
21	$ 6,483	$ 69,718	$ 158,229	$ 266,366	$ 279,017	$ 286,798	$ 279,274	$ 271,751
22	$ 127,832	$ 198,348	$ 294,577	$ 24,380,117	$ 26,056,704	$ 27,290,868	$ 28,583,311	$ 29,953,752
23								
24	$ 5,226,561	$ 11,770,141	$ 19,774,813	$ 44,706,579	$ 46,601,539	$ 46,978,148	$ 47,453,670	$ 48,045,763
25	$ 5,226,225	$ 11,769,378	$ 19,773,528	$ 44,705,239	$ 46,600,208	$ 46,976,843	$ 47,458,553	$ 48,044,547
26								
27	$ 336	$ 763	$ 1,285	$ 1,340	$ 1,331	$ 1,305	$ (4,883)	$ 1,216

	O	P
1		
2		
3		
4	2018	
5		
6		
7	$ 203,969,979	
8	$ -	
9	$ 203,969,979	
10	$ (33,448,893)	
11	$ (13,098,586)	
12	$ 157,422,500	
13	10.97%	
14	$ 17,269,248	
15		
16	$ 25,430,713	
17	$ -	
18	$ -	
19	$ 25,430,713	
20	$ 5,690,762	
21	$ 264,317	
22	$ 31,385,792	
23		
24	$ 48,655,040	
25	$ 48,653,648	
26		
27	$ 1,392	$ 4,084

Kentucky Energy and Environment Cabinet
Department for Environmental Protection
Division of Waste Management

PERMIT

Facility:

Sterling Ventures LLC
100 Sierra Dr
Verona, KY 41092

Permittee:

Sterling Materials
376 South Broadway
Lexington, KY 40508

Agency Interest:

Sterling Ventures LLC
100 Sierra Dr
Verona, KY 41092

The Division has issued the permit under the provisions of KRS Chapter 224 and regulations promulgated pursuant thereto. This permitted activity or activities are subject to all conditions and operating limitations contained herein. Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses or approvals required by this Division or other state and local agencies.

No deviation from the plans and specifications submitted with your application or any condition specified herein is allowed, unless authorized in writing from the Division. Violation of the terms and conditions specified herein may render this permit null and void. All rights of inspection by representatives of the Division are reserved. Conformance with all applicable Waste Management Regulations is the responsibility of the permittee.

Agency Interest ID #: **1461**

Solid Waste Permit #: **SW00800023**

County: **Gallatin**

Permitted Activities:

Subject Item	Activity	Type	Status
ACTV001	Beneficial Reuse-Special Waste-RPBR/00800023	Registered Permit by Rule	Active

Permit Number: SW00800023 Agency Interest ID: 1461

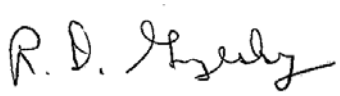
PERMIT

First Operational Permit Effective Date: 11/19/2010

Permit Effective Date: 11/19/2010

Permit Expiration Date: Life of facility

Permit issued: 11/19/2010



Ronald D. Gruzesky, P.E.
Manager, Solid Waste Branch

Permit Conditions:

Subject Items

ACTV0001 - Beneficial Reuse-Special Waste-RPBR

Standard Requirements:

1. General: The owner or operator of a special waste facility shall comply with KRS Chapter 224 and 401 KAR Chapters 30, 40 and 45 for the operation of special waste facilities. [KRS 224.50-760]

2. General: For operation of the special waste beneficial reuse that is not otherwise specified in 401 KAR 45:060, the owner or operator shall comply with KRS Chapter 224.50-760, 401 KAR 45:070 and the approved permit application(s). [401 KAR 45:070]

Variances, Alternate Specifications and Special Conditions:

1. Operation: The owner or operator is approved to beneficially reuse flue gas desulfurization gypsum produced by the KU Ghent Power Station in mined out sections of the Sterling Mine on the first level, in the Tyrone Limestone. [401 KAR 45:070 Section 3]

2. Operation: The owner or operator shall submit a revised registration prior to beneficially reusing sources or types of wastes other than FGD sludge from the KU Ghent power station, beneficially reusing FGD gypsum in areas other than the first level of the mine, changing the method of processing waste, adding new processes, changing the operator, or changing ownership. [401 KAR 45:070 Section 4]

PERMIT

3. Operation: The owner or operator shall comply with the Environmental Performance Standards of 401 KAR 30:031. [401 KAR 30:031]

4. Operation: The owner or operator is approved to beneficially reuse up to 800,000 tons per year of FGD gypsum. [401 KAR 45:070 Section 3]

5. Operation: The owner or operator shall ensure that no water, except that necessary for dust suppression, shall enter the beneficial reuse area. [401 KAR 45:140 Section 2]

6. Operation: The owner or operator shall ensure that the FGD gypsum is stored only in areas with no standing water. [401 KAR 45:140 Section 2]

County Sources - The owner or operator may accept waste as authorized by the cabinet pursuant to KRS 224 and/or 401 KAR Chapter 47 from the following counties:

Kentucky: Carroll

Approved Applications - The owner or operator shall comply with applicable statutes and regulations and the following approved applications:

1. 11-19-2010 - ARP20100001 - Registered Permit-by-Rule Beneficial Reuse

From: Straight, Scott(/O=LGE/OU=LOUISVILLE/CN=RECIPIENTS/CN=WEB/CN=SCOTTSTRAIGHT)
To: Voyles, John
CC:
BCC:
Subject: FW: Ghent Landfill Beneficial Reuse
Sent: 02/20/2012 10:16:16 AM -0500 (EST)
Attachments: Ghent Project 30 PVRR Table SV Option1 with gypsum equipment.pdf; Ghent Project 30 PVRR Table SV Option2 with gypsum equip.pdf; Ghent PVRR Phase 1 with Gypsum Equipment.xlsx; Ghent Project 30 PVRR Table SV Option2.pdf; Ghent Project 30 PVRR Table SV Option1.pdf; Ghent Project 30 PVRR Table.pdf;

John,

Here is an email history of my limited involvement with Mr. Walters. Please note that after my first response, the review was shifted to Jeff Joyce. Also, note those copied on this email.

I will look to see if I have any other emails from Mr. Walters and forward them separately.

Scott

From: John Walters [mailto:johnwalters@sterlingventures.com]
Sent: Wednesday, December 14, 2011 11:20 AM
To: Straight, Scott; Pfeiffer, Caryl; Voyles, John; Schram, Chuck; Joyce, Jeff; Heun, Jeff; Bowling, Ralph; Sturgeon, Allyson
Subject: Ghent Landfill Beneficial Reuse

Scott

Thank you for the reply. I must admit that I am a little confused by your response, particularly that the project "could have merit in a few years to defer the next phased expansion of the landfill".

In his testimony before the PSC in connection with the approval of the Ghent landfill, Lonnie Bellar stated, *"If the Companies are able to take advantage of beneficial reuse opportunities **when they arise**, they can reduce the rate of CCP material going into on-site storage facilities, thereby extending the life of their CCP storage facilities. The Companies are therefore actively seeking such alternative to reduce the volume of on-site that is required to continue operating their generating facilities."*

The opportunity to use Sterling's Beneficial Reuse Permit has arisen. (In fact, it is has been available for over a year.) It is an immediate beneficial reuse opportunity, not a potential future opportunity. It is a current opportunity that is a lower PVRR cost alternative, and will extend the life of the new landfill. Delaying a fully PVRR review and analysis for 5 to 6 years seems to be completely contrary to KU's commitment to the PSC on the procedures that would be followed in making an unbiased decision on whether to spend capital, or to take advantage of a beneficial reuse opportunity.

> All beneficial reuse opportunities will be screened, discussed, evaluated and documented (in conjunction with the current plan) **when their availability first becomes known**- not solely when a need for additional storage capacity has been identified as the evaluation of each prudent reuse opportunity could provide a delay of the next phase of construction.
> ….
> While many factors impact decisions on how to proceed (such as safety, ability to acquire needed permit(s), etc.) **present value of revenue requirements is used as the primary economic decision metric**. In some instances, additional cost metrics (such as cost per cubic yard or cost per ton) may also be quantified. Documentation for the evaluation is typically produced in close proximity to completing the evaluation. Often the supporting documentation is the source from which many internal and **external presentations or business cases discussing the issue are developed**. As previously stated, documentation regarding the alternatives is typically developed in coordination with consultants, however, the economic evaluation and associated documentation summarizing the economic evaluation is developed within E.ON U.S. At each decision point (such as formulation of alternatives, evaluation of options, development of documentation), **oversight is built into the**

> **process to serve as a check**. The function of this validation step is to subject the alternatives, evaluation or documentation to extensive "what ifs" and to confirm that a better alternative or solution does not possibly exist. For example, is it possible that more favorable economics could not be achieved by selecting an alternative site or location? (*Comprehensive Strategy for Management of Coal Combustion Byproducts, June 2009*)

Mr. Bellar also stated in his testimony before the PSC that: *"The rate treatment of CCP storage facilities projects and the beneficial reuse opportunities should be consistent to avoid any economic bias toward one project type. When economic evaluation of CCP projects is consistent, including both capital investment and beneficial reuse, customers will ultimately benefit through the lowest combination of long-term CCP management options."*

What Sterling Ventures has proposed is that Phase 2 of the Ghent Landfill project can be delayed by eleven years, and that phase 3 of the landfill can be eliminated entirely, by diverting all gypsum using Sterling's Beneficial Reuse Permit starting when the new landfill opens. If Ghent only places ash, not gypsum, in its new landfill **from the beginning**, its life is significantly and materially extended. If you do not take advantage of Sterling's Beneficial Reuse Permit when the landfill first opens, but instead delay using the opportunity until you begin construction of phase two, KU will then be forced to build phase 2 earlier than necessary, and will most certainly be required to build phase 3.

In addition, planning now to take advantage of Sterling's permit allows KU to delay the purchase of rolling stock and equipment that would be necessary to place gypsum in the new landfill. However, as the attached PVRR analysis sheet shows, **even if** Ghent spends all of the cost to purchase and install the gypsum dewatering system and other gypsum related capital cost, it is still significantly less expensive to take advantage of Sterling's Beneficial Reuse Permit beginning in 2013 than it would be to dispose of gypsum in Ghent's landfill ($31,600,000 in PVRR savings). However, installing all of the gypsum handling equipment would seem excessive, especially given that Ghent's gypsum stacking pond could be used in the interim if installation of the gypsum handling equipment is required in the future.

We have also presented the option of purchasing hi-calcium scrubber limestone from our mine at approximately the same cost as Ghent is currently paying for its' limestone, and backhauling the limestone to Ghent, thereby further reducing the CCP disposal cost. This is potentially another $23,000,000 in PVRR saving to KU's customers. According to documents filed with the PSC, the existing contract with Mulzer Crushed Stone for Ghent's scrubber stone is a 9 year contract ending at the end of 2014, with an opt out pricing negotiating provision in 2012.

The purpose of Sterling providing the PVRR analysis comparing Project 30, with and without the beneficial reuse opportunity, was to approximate, as close as possible, the procedure that KU committed to the PSC that it would follow when presented with a current beneficial reuse opportunity with respect to the new landfills. We expected, given KU's pledge to the PSC, and the significant PVRR saving opportunities presented, that we would be able to sit down with KU to fully discuss our permit, options, limestone alternatives, costs, risks, price, contract terms and other facets of the beneficial reuse opportunity Sterling presented.

We would again respectfully request that KU take the time to meet with us now, not in 5 or 6 years, to completely analyze this beneficial reuse opportunity using the procedures, with appropriate unbiased oversight, that KU committed to the PSC would be followed.

John Walters

--

John W. Walters, Jr.

Sterling Ventures, LLC

376 South Broadway

Lexington, KY 40508

Phone (859) 259-9600

Fax (859) 259-9601

johnwalters@sterlingventures.com

_____

Straight, Scott Scott.Straight@lge-ku.com Dec 13 (1 day ago)
to me, Caryl, John, charles.schram, Jeff, Jeff, Ralph

Mr. Walters,

As we have discussed over the phone, this potential opportunity you have presented would not eliminate the need to construct the infrastructure required to process the by-products at Ghent, nor would it eliminate the construction of the landfill infrastructure. Instead, it potentially could have merit in a few years to defer the next phased expansion of the landfill.

The next phase of the landfill is years away; therefore, I'm transferring any future evaluation of this proposal to Mr. Jeff Joyce, Ghent's General Manager.

As the station General Manager, Mr. Joyce will take the lead on any consideration of changes to the future operation of that facility. If needed, Mr. Joyce will request involvement from my department or Caryl Pfeiffer's Corporate Fuels and By-Products department.

Sincerely,

Scott Straight
Director, Project Engineering
LG&E and KU Energy, LLC
(502) 627-2701
scott.straight@lge-ku.com

Annual Revenue Requirements - Ghent Landfill - KU Project 30 with Beneficial Reuse -Sterling Ventures Mine

This option assumes purchase of all gypsum related equipment

	Capital					O&M				Total
	Phase 1	Phase 2	Phase 3	Final Cap	Total	Non-Power	Power	Beneficial Reuse	Total O&M	
12/31/2009	480,509	-	-		480,509		84,800	-	84,800	565,309
12/31/2010	5,098,729	-	-		5,098,729		127,832	-	127,832	5,226,561
12/31/2011	11,571,793	-	-		11,571,793		198,348	-	198,348	11,770,141
12/31/2012	19,480,236	-	-		19,480,236		294,577	-	294,577	19,774,813
12/31/2013	20,326,462	-	-		20,326,462		24,380,117	930,473	25,310,590	45,637,052
12/31/2014	20,544,834	-	-		20,544,834		26,056,704	986,301	27,043,006	47,587,840
12/31/2015	19,687,280	-	-		19,687,280		27,290,868	1,045,479	28,336,347	48,023,628
12/31/2016	18,799,210	-	-		18,799,210		28,578,421	1,094,258	29,672,680	48,471,890
12/31/2017	17,948,314	-	-		17,948,314		29,956,559	1,132,851	31,089,409	49,037,723
12/31/2018	17,131,380	-	-		17,131,380		31,612,174	980,133	32,592,307	49,723,687
12/31/2019	16,268,561	-	-		16,268,561		33,594,783	608,444	34,203,227	50,471,789
12/31/2020	15,405,743	-	-		15,405,743		35,566,861	380,737	35,947,599	51,353,341
12/31/2021	14,542,924	-	-		14,542,924		38,056,766	367,033	38,423,798	52,966,722
12/31/2022	13,680,105	-	-		13,680,105		39,920,041	456,015	40,376,056	54,056,161
12/31/2023	12,817,286	-	-		12,817,286		41,890,306	550,336	42,440,641	55,257,928
12/31/2024	11,954,467	-	-		11,954,467		44,529,811	99,291	44,629,102	56,583,569
12/31/2025	11,091,649	-	-		11,091,649		47,885,193	(910,730)	46,974,463	58,066,112
12/31/2026	10,228,830	52,720	-		10,281,550		51,399,644	(1,900,443)	49,499,201	59,780,752
12/31/2027	9,366,011	156,032	-		9,522,043		54,431,913	(2,246,486)	52,185,427	61,707,470
12/31/2028	8,503,192	993,170	-		9,496,362		55,178,509	(1,897,064)	53,281,445	62,777,807
12/31/2029	7,640,374	2,639,761	-		10,280,134		57,858,589	(1,316,868)	56,541,721	66,821,855
12/31/2030	6,777,555	3,691,001	-		10,468,556		60,699,474	(868,144)	59,831,330	70,299,885
12/31/2031	5,914,736	3,904,584	-		9,819,320		63,710,812	(620,161)	63,090,651	72,909,971
12/31/2032	5,051,917	3,734,217	-		8,786,134		66,902,830	(460,808)	66,442,022	75,228,156
12/31/2033	4,189,098	3,563,850	-		7,752,949		70,286,369	(291,893)	69,994,476	77,747,424
12/31/2034	3,326,280	3,393,483	-		6,719,763		73,872,921	(112,844)	73,760,076	80,479,839
12/31/2035	2,463,461	3,223,116	-		5,686,577		77,674,665	76,948	77,751,613	83,438,190
12/31/2036	1,600,642	3,052,749	-		4,653,392		81,704,515	278,128	81,982,642	86,636,034
12/31/2037	737,823	2,882,383	-		3,620,206		85,976,155	491,378	86,467,533	90,087,739
2009 PVRR	153,383,226	5,355,077	-		158,738,303		354,316,774	2,328,121	356,644,895	515,383,198
Cubic Yards	17,350,000	7,807,500			25,157,500		25,157,500		25,157,500	25,157,500
									$/CY (PVRR)	$ 20.49

CASE	Option 30	Option 30 with Benefical Reuse
PVRR		
Capital	$ 192,717,582	$ 158,738,303
O&M	354,316,774	356,644,895
Total	$ 547,034,356	$ 515,383,198
Delta to Least Cost	**$ 31,651,158**	Least Cost
Unit Cost (2009 PVRR $/CY)	$ 21.74	$ 20.49

Annual Revenue Requirements - Ghent Landfill - KU Project 30 with Beneficial Reuse -Sterling Ventures Mine

	Capital					O&M				Total
	Phase 1	Phase 2	Phase 3	Final Cap	Total	Non-Power	Power	Beneficial Reuse	Total O&M	
12/31/2009	480,509	-	-		480,509		84,800	-	84,800	565,309
12/31/2010	3,553,056	-	-		3,553,056		127,832	-	127,832	3,680,888
12/31/2011	7,177,211	-	-		7,177,211		198,348	-	198,348	7,375,559
12/31/2012	13,654,069	-	-		13,654,069		294,577	-	294,577	13,948,646
12/31/2013	14,678,389	-	-		14,678,389		24,380,117	(489,556)	23,890,561	38,568,950
12/31/2014	15,152,993	-	-		15,152,993		26,056,704	(495,467)	25,561,237	40,714,230
12/31/2015	14,539,006	-	-		14,539,006		27,290,868	(436,289)	26,854,579	41,393,584
12/31/2016	13,883,815	-	-		13,883,815		28,578,421	(387,511)	28,190,911	42,074,725
12/31/2017	13,255,915	-	-		13,255,915		29,956,559	(348,918)	29,607,640	42,863,556
12/31/2018	12,653,016	-	-		12,653,016		31,612,174	(501,636)	31,110,538	43,763,554
12/31/2019	12,016,402	-	-		12,016,402		33,594,783	(873,325)	32,721,458	44,737,860
12/31/2020	11,379,788	-	-		11,379,788		35,566,861	(1,101,031)	34,465,830	45,845,618
12/31/2021	10,743,173	-	-		10,743,173		38,056,766	(1,114,736)	36,942,030	47,685,203
12/31/2022	10,106,559	-	-		10,106,559		39,920,041	(1,025,754)	38,894,287	49,000,846
12/31/2023	9,469,945	-	-		9,469,945		41,890,306	(931,433)	40,958,872	50,428,818
12/31/2024	8,833,331	-	-		8,833,331		44,529,811	(1,382,478)	43,147,333	51,980,664
12/31/2025	8,196,717	-	-		8,196,717		47,885,193	(2,392,499)	45,492,694	53,689,411
12/31/2026	7,560,103	52,720	-		7,612,823		51,399,644	(3,382,211)	48,017,432	55,630,256
12/31/2027	6,923,489	156,032	-		7,079,520		54,431,913	(3,728,255)	50,703,658	57,783,179
12/31/2028	6,286,875	993,170	-		7,280,044		55,178,509	(3,378,832)	51,799,676	59,079,720
12/31/2029	5,650,260	2,639,761	-		8,290,021		57,858,589	(2,798,637)	55,059,952	63,349,973
12/31/2030	5,013,646	3,691,001	-		8,704,647		60,699,474	(2,349,913)	58,349,561	67,054,208
12/31/2031	4,377,032	3,904,584	-		8,281,616		63,710,812	(2,101,930)	61,608,882	69,890,498
12/31/2032	3,740,418	3,734,217	-		7,474,635		66,902,830	(1,942,577)	64,960,253	72,434,888
12/31/2033	3,103,804	3,563,850	-		6,667,654		70,286,369	(1,773,662)	68,512,707	75,180,361
12/31/2034	2,467,190	3,393,483	-		5,860,673		73,872,921	(1,594,613)	72,278,307	78,138,980
12/31/2035	1,830,576	3,223,116	-		5,053,692		77,674,665	(1,404,821)	76,269,844	81,323,536
12/31/2036	1,193,961	3,052,749	-		4,246,711		81,704,515	(1,203,641)	80,500,873	84,747,584
12/31/2037	557,347	2,882,383	-		3,439,730		85,976,155	(990,391)	84,985,764	88,425,494
2009 PVRR	111,212,472	5,355,077	-		116,567,550		354,316,774	(10,448,976)	343,867,798	460,435,348
Cubic Yards	17,350,000	7,807,500			25,157,500		25,157,500		25,157,500	25,157,500
									$/CY (PVRR)	$ 18.30

CASE	Option 30	Option 30 with Benefical Reuse
PVRR		
Capital	$ 192,717,582	$ 116,567,550
O&M	354,316,774	343,867,798
Total	$ 547,034,356	$ 460,435,348
Delta to Least Cost	**$ 86,599,008**	Least Cost
Unit Cost (2009 PVRR $/CY)	$ 21.74	$ 18.30

NOTE-This Table Requires $9.00 Price Inserted into cell D16 of PVRR Analysis

Annual Revenue Requirements - Ghent Landfill - KU Project 30 with Beneficial Reuse -Sterling Ventures Mine With Scrubber Stone Backhaul

This option assumes purchase of all gypsum related equipment

	Capital					O&M				Total
	Phase 1	Phase 2	Phase 3	Final Cap	Total	Non-Power	Power	Beneficial Reuse	Total O&M	
12/31/2009	480,509	-	-		480,509		84,800	-	84,800	565,309
12/31/2010	5,098,729	-	-		5,098,729		127,832	-	127,832	5,226,561
12/31/2011	11,571,793	-	-		11,571,793		198,348	-	198,348	11,770,141
12/31/2012	19,480,236	-	-		19,480,236		294,577	-	294,577	19,774,813
12/31/2013	20,326,462	-	-		20,326,462		24,380,117	(569,527)	23,810,590	44,137,052
12/31/2014	20,544,834	-	-		20,544,834		26,056,704	(603,699)	25,453,006	45,997,840
12/31/2015	19,687,280	-	-		19,687,280		27,290,868	(639,921)	26,650,947	46,338,228
12/31/2016	18,799,210	-	-		18,799,210		28,578,421	(692,266)	27,886,156	46,685,366
12/31/2017	17,948,314	-	-		17,948,314		29,956,559	(760,865)	29,195,694	47,144,008
12/31/2018	17,131,380	-	-		17,131,380		31,612,174	(1,027,206)	30,584,968	47,716,348
12/31/2019	16,268,561	-	-		16,268,561		33,594,783	(1,519,335)	32,075,449	48,344,010
12/31/2020	15,405,743	-	-		15,405,743		35,566,861	(1,874,708)	33,692,153	49,097,896
12/31/2021	14,542,924	-	-		14,542,924		38,056,766	(2,023,739)	36,033,026	50,575,950
12/31/2022	13,680,105	-	-		13,680,105		39,920,041	(2,078,204)	37,841,838	51,521,943
12/31/2023	12,817,286	-	-		12,817,286		41,890,306	(2,135,936)	39,754,370	52,571,656
12/31/2024	11,954,467	-	-		11,954,467		44,529,811	(2,748,157)	41,781,654	53,736,121
12/31/2025	11,091,649	-	-		11,091,649		47,885,193	(3,929,025)	43,956,168	55,047,817
12/31/2026	10,228,830	52,720	-		10,281,550		51,399,644	(5,099,835)	46,299,809	56,581,359
12/31/2027	9,366,011	156,032	-		9,522,043		54,431,913	(5,637,842)	48,794,071	58,316,114
12/31/2028	8,503,192	993,170	-		9,496,362		55,178,509	(5,491,901)	49,686,608	59,182,970
12/31/2029	7,640,374	2,639,761	-		10,280,134		57,858,589	(5,127,395)	52,731,194	63,011,328
12/31/2030	6,777,555	3,691,001	-		10,468,556		60,699,474	(4,907,303)	55,792,171	66,260,726
12/31/2031	5,914,736	3,904,584	-		9,819,320		63,710,812	(4,901,670)	58,809,142	68,628,462
12/31/2032	5,051,917	3,734,217	-		8,786,134		66,902,830	(4,999,207)	61,903,623	70,689,757
12/31/2033	4,189,098	3,563,850	-		7,752,949		70,286,369	(5,102,597)	65,183,772	72,936,721
12/31/2034	3,326,280	3,393,483	-		6,719,763		73,872,921	(5,212,190)	68,660,731	75,380,494
12/31/2035	2,463,461	3,223,116	-		5,686,577		77,674,665	(5,328,358)	72,346,307	78,032,884
12/31/2036	1,600,642	3,052,749	-		4,653,392		81,704,515	(5,451,497)	76,253,018	80,906,409
12/31/2037	737,823	2,882,383	-		3,620,206		85,976,155	(5,582,024)	80,394,131	84,014,337
2009 PVRR	153,383,226	5,355,077	-		158,738,303		354,316,774	(20,478,541)	333,838,232	492,576,536
Cubic Yards	17,350,000	7,807,500			25,157,500		25,157,500		25,157,500	25,157,500
									$/CY (PVRR)	$ 19.58

CASE	Option 30	Option 30 with Benefical Reuse
PVRR		
Capital	$ 192,717,582	$ 158,738,303
O&M	354,316,774	333,838,232
Total	$ 547,034,356	$ 492,576,536
Delta to Least Cost	**$ 54,457,820**	Least Cost
Unit Cost (2009 PVRR $/CY)	$ 21.74	$ 19.58

NOTE-This Table Requires $9.00 Price Inserted into cell D16 of PVRR Analysis

Annual Revenue Requirements - Ghent Landfill - KU Project 30 with Beneficial Reuse -Sterling Ventures Mine With Scrubber Stone Backhaul

	Capital					O&M				Total
	Phase 1	Phase 2	Phase 3	Final Cap	Total	Non-Power	Power	Beneficial Reuse	Total O&M	
12/31/2009	480,509	-	-		480,509		84,800	-	84,800	565,309
12/31/2010	3,553,056	-	-		3,553,056		127,832	-	127,832	3,680,888
12/31/2011	7,177,211	-	-		7,177,211		198,348	-	198,348	7,375,559
12/31/2012	13,654,069	-	-		13,654,069		294,577	-	294,577	13,948,646
12/31/2013	14,678,389	-	-		14,678,389		24,380,117	(1,989,556)	22,390,561	37,068,950
12/31/2014	15,152,993	-	-		15,152,993		26,056,704	(2,085,467)	23,971,237	39,124,230
12/31/2015	14,539,006	-	-		14,539,006		27,290,868	(2,121,689)	25,169,179	39,708,184
12/31/2016	13,883,815	-	-		13,883,815		28,578,421	(2,174,035)	26,404,387	40,288,201
12/31/2017	13,255,915	-	-		13,255,915		29,956,559	(2,242,634)	27,713,925	40,969,840
12/31/2018	12,653,016	-	-		12,653,016		31,612,174	(2,508,974)	29,103,199	41,756,215
12/31/2019	12,016,402	-	-		12,016,402		33,594,783	(3,001,104)	30,593,680	42,610,081
12/31/2020	11,379,788	-	-		11,379,788		35,566,861	(3,356,477)	32,210,385	43,590,172
12/31/2021	10,743,173	-	-		10,743,173		38,056,766	(3,505,508)	34,551,257	45,294,431
12/31/2022	10,106,559	-	-		10,106,559		39,920,041	(3,559,973)	36,360,069	46,466,628
12/31/2023	9,469,945	-	-		9,469,945		41,890,306	(3,617,705)	38,272,601	47,742,546
12/31/2024	8,833,331	-	-		8,833,331		44,529,811	(4,229,926)	40,299,885	49,133,216
12/31/2025	8,196,717	-	-		8,196,717		47,885,193	(5,410,794)	42,474,399	50,671,116
12/31/2026	7,560,103	52,720	-		7,612,823		51,399,644	(6,581,604)	44,818,040	52,430,863
12/31/2027	6,923,489	156,032	-		7,079,520		54,431,913	(7,119,611)	47,312,302	54,391,823
12/31/2028	6,286,875	993,170	-		7,280,044		55,178,509	(6,973,670)	48,204,839	55,484,883
12/31/2029	5,650,260	2,639,761	-		8,290,021		57,858,589	(6,609,164)	51,249,425	59,539,446
12/31/2030	5,013,646	3,691,001	-		8,704,647		60,699,474	(6,389,072)	54,310,402	63,015,049
12/31/2031	4,377,032	3,904,584	-		8,281,616		63,710,812	(6,383,438)	57,327,373	65,608,989
12/31/2032	3,740,418	3,734,217	-		7,474,635		66,902,830	(6,480,976)	60,421,854	67,896,489
12/31/2033	3,103,804	3,563,850	-		6,667,654		70,286,369	(6,584,365)	63,702,004	70,369,657
12/31/2034	2,467,190	3,393,483	-		5,860,673		73,872,921	(6,693,958)	67,178,962	73,039,635
12/31/2035	1,830,576	3,223,116	-		5,053,692		77,674,665	(6,810,127)	70,864,538	75,918,230
12/31/2036	1,193,961	3,052,749	-		4,246,711		81,704,515	(6,933,266)	74,771,249	79,017,960
12/31/2037	557,347	2,882,383	-		3,439,730		85,976,155	(7,063,793)	78,912,362	82,352,092
2009 PVRR	111,212,472	5,355,077	-		116,567,550		354,316,774	(33,255,638)	321,061,136	437,628,685
Cubic Yards	17,350,000	7,807,500			25,157,500		25,157,500		25,157,500	25,157,500
									$/CY (PVRR)	$ 17.40

CASE	Option 30	Option 30 with Benefical Reuse
PVRR		
Capital	$ 192,717,582	$ 116,567,550
O&M	354,316,774	321,061,136
Total	$ 547,034,356	$ 437,628,685
Delta to Least Cost	**$ 109,405,671**	Least Cost
Unit Cost (2009 PVRR $/CY)	$ 21.74	$ 17.40

	Annual Revenue Requirements - Ghent Landfill - KU Project 30									
	Capital					O&M				Total
	Phase 1	Phase 2	Phase 3	Final Cap	Total	Non-Power	Power	Beneficial Reuse	Total O&M	
12/31/2009	480,509	-	-		480,509		84,800		84,800	565,309
12/31/2010	5,098,729	-	-		5,098,729		127,832		127,832	5,226,561
12/31/2011	11,571,793	-	-		11,571,793		198,348		198,348	11,770,141
12/31/2012	19,480,236	-	-		19,480,236		294,577		294,577	19,774,813
12/31/2013	20,326,462	-	-		20,326,462		24,380,117		24,380,117	44,706,579
12/31/2014	20,544,834	-	-		20,544,834		26,056,704		26,056,704	46,601,539
12/31/2015	19,687,280	-	-		19,687,280		27,290,868		27,290,868	46,978,148
12/31/2016	18,799,210	52,684	-		18,851,894		28,578,421		28,578,421	47,430,316
12/31/2017	17,948,314	155,939	-		18,104,253		29,956,559		29,956,559	48,060,812
12/31/2018	17,131,380	993,170	-		18,124,550		31,612,174		31,612,174	49,736,723
12/31/2019	16,268,561	2,639,761	-		18,908,322		33,594,783		33,594,783	52,503,105
12/31/2020	15,405,743	3,691,001	-		19,096,743		35,566,861		35,566,861	54,663,605
12/31/2021	14,542,924	3,904,584	-		18,447,508		38,056,766		38,056,766	56,504,274
12/31/2022	13,680,105	3,734,217	-		17,414,322		39,920,041		39,920,041	57,334,363
12/31/2023	12,817,286	3,563,850	-		16,381,136		41,890,306		41,890,306	58,271,442
12/31/2024	11,954,467	3,393,483	2,082,456		17,430,407		44,529,811		44,529,811	61,960,218
12/31/2025	11,091,649	3,223,116	6,215,971		20,530,736		47,885,193		47,885,193	68,415,929
12/31/2026	10,228,830	3,052,749	10,179,118		23,460,698		51,399,644		51,399,644	74,860,342
12/31/2027	9,366,011	2,882,383	11,617,513		23,865,907		54,431,913		54,431,913	78,297,820
12/31/2028	8,503,192	2,712,016	11,117,397		22,332,605		55,178,509		55,178,509	77,511,114
12/31/2029	7,640,374	2,541,649	10,617,281		20,799,303		57,858,589		57,858,589	78,657,892
12/31/2030	6,777,555	2,371,282	10,117,164		19,266,001		60,699,474		60,699,474	79,965,474
12/31/2031	5,914,736	2,200,915	9,617,048		17,732,699		63,710,812		63,710,812	81,443,510
12/31/2032	5,051,917	2,030,548	9,116,931		16,199,397		66,902,830		66,902,830	83,102,226
12/31/2033	4,189,098	1,860,181	8,616,815		14,666,095		70,286,369		70,286,369	84,952,464
12/31/2034	3,326,280	1,689,814	8,116,699		13,132,793		73,872,921		73,872,921	87,005,713
12/31/2035	2,463,461	1,519,447	7,616,582		11,599,490		77,674,665		77,674,665	89,274,156
12/31/2036	1,600,642	1,349,080	7,116,466		10,066,188		81,704,515		81,704,515	91,770,703
12/31/2037	737,823	1,178,714	6,616,349		8,532,886		85,976,155		85,976,155	94,509,041
2009 PVRR	153,383,226	14,945,173	24,389,184		192,717,582		354,316,774		354,316,774	547,034,356
Cubic Yards	9,542,500	6,072,500	9,542,500		25,157,500		25,157,500		25,157,500	25,157,500
									$/CY (PVRR)	$ 21.74

	A	B	C	D	E	F	G	H	I
1	Revenue Requirments Summary								
2	Gypsum Disposal at Sterling Materials					2009	2010	2011	2012
3									
4	Revenue Requirement								
5	Eligible Plant					$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356
6	Less Gypsum Plant Requirements/Phase Delays					$ -			
7	Revised Eligible Plant					$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356
8	Less Accumulated Depreciation								
9	Less Deferred Tax Balance								
10	Environmental Compliance Rate Base					$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356
11	Rate of Return					11.1%	10.97%	10.97%	10.97%
12		Assumed	Tons (1.155)	1,000,000		$ 480,509	$ 5,098,729	$ 11,571,793	$ 19,480,236
13		86.7500%	Cubic yards	867,500					
14	Operating Expenses					$ 84,800	$ 121,349	$ 128,630	$ 136,348
15	less Gypsum to On-site Landfill								
16	Gypsum to Sterling			**$ 10.50**					
17	Net Operating					$ 84,800	$ 121,349	$ 128,630	$ 136,348
18	Annual Depreciation								
19	Annual Property Tax Expense						$ 6,483	$ 69,718	$ 158,229
20	Total OE					$ 84,800	$ 127,832	$ 198,348	$ 294,577
21									
22	Total E(m) Gypsum to Sterling				**$ 515,383,198**	$ 565,309	$ 5,226,561	$ 11,770,141	$ 19,774,813
23	Total E(m) - Project 30 (See below)				**$ 547,034,356**	$ 565,309	$ 5,226,561	$ 11,770,141	$ 19,774,813
24									
25	**Difference**		**PVRR**	**7.81%**	**$ (31,651,158)**	$ -	$ -	$ -	$ -
26	Date					12/31/2009	12/31/2010	12/31/2011	12/31/2012
27									
28	Revenue Requirments Summary								
29	2009 Amended Plan								
30	Project 30		Ghent Landfill Phase I						
31	See Exhibit B					2009	2010	2011	2012
32									
33	Revenue Requirement								
34	Eligible Plant					$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356
35	Less Gypsum Plant Requirements/Phase Delays					$ -	$ -	$ -	$ -
36	Revised Eligible Plant					$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356
37	Less Accumulated Depreciation								
38	Less Deferred Tax Balance								
39	Environmental Compliance Rate Base					$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356
40	Rate of Return					11.1%	10.97%	10.97%	10.97%
41						$ 480,509	$ 5,098,729	$ 11,571,793	$ 19,480,236
42									
43	Operating Expenses					$ 84,800	$ 121,349	$ 128,630	$ 136,348
44	less Gypsum to On-site Landfill								
45	Gypsum to Sterling								
46	Net Operating					$ 84,800	$ 121,349	$ 128,630	$ 136,348
47	Annual Depreciation								
48	Annual Property Tax Expense						$ 6,483	$ 69,718	$ 158,229
49	Total OE					$ 84,800	$ 127,832	$ 198,348	$ 294,577
50									
51	Total E(m) Gypsum to On-site Landfill as Calculated				**547,034,356**	$ 565,309	$ 5,226,561	$ 11,770,141	$ 19,774,813

	J	K	L	M	N	O	P	Q	R	S	T	U	V
1													
2	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
3													
4													
5	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 203,078,976	$ 204,078,976	$ 212,078,976	$ 228,078,976	$ 239,078,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 262,328,976	$ 302,328,976
6				$ (500,000)	$ (1,500,000)	$ (9,500,000)	$ (25,500,000)	$ (36,500,000)	$ (40,000,000)	$ (40,000,000)	$ (40,000,000)	$ (59,750,000)	$ (99,750,000)
7	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976
8	$ (5,110,443)	$ (10,744,623)	$ (16,396,576)	$ (22,048,530)	$ (27,700,483)	$ (33,352,436)	$ (39,004,389)	$ (44,656,342)	$ (50,308,295)	$ (55,960,248)	$ (61,612,201)	$ (67,264,154)	$ (72,916,107)
9	$ (732,114)	$ (3,915,341)	$ (6,717,677)	$ (9,161,164)	$ (11,265,786)	$ (13,060,814)	$ (15,274,119)	$ (17,487,423)	$ (19,700,728)	$ (21,914,033)	$ (24,127,338)	$ (26,340,643)	$ (28,553,947)
10	$ 185,291,361	$ 187,281,989	$ 179,464,723	$ 171,369,282	$ 163,612,707	$ 156,165,726	$ 148,300,469	$ 140,435,211	$ 132,569,953	$ 124,704,695	$ 116,839,437	$ 108,974,180	$ 101,108,922
11	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
12	$ 20,326,462	$ 20,544,834	$ 19,687,280	$ 18,799,210	$ 17,948,314	$ 17,131,380	$ 16,268,561	$ 15,405,743	$ 14,542,924	$ 13,680,105	$ 12,817,286	$ 11,954,467	$ 11,091,649
13								$ 27,051	$ 661,940				
14	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,556	**$ 28,601,000**	**$ 30,979,000**	$ 32,837,740	$ 34,808,004	$ 36,896,485	$ 39,110,274
15	$ (9,569,527)	$ (10,143,699)	$ (10,752,321)	$ (11,397,460)	$ (12,081,307)	$ (12,806,186)	$ (13,574,557)	$ (14,389,030)	$ (15,252,372)	$ (16,167,515)	$ (17,137,565)	$ (18,165,819)	$ (19,255,768)
16	$ 10,500,000	$ 11,130,000	$ 11,797,800	$ 12,505,668	$ 13,256,008	$ 14,051,369	$ 14,894,451	$ 15,788,118	$ 16,735,405	$ 17,739,529	$ 18,803,901	$ 19,932,135	$ 21,128,063
17	$ 19,933,781	$ 21,129,808	$ 22,397,596	$ 23,741,452	$ 25,165,940	$ 26,675,896	$ 28,276,450	$ 30,000,087	$ 32,462,033	$ 34,409,755	$ 36,474,340	$ 38,662,800	$ 40,982,568
18	$ 5,110,443	$ 5,634,180	$ 5,651,953	$ 5,651,954	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953
19	$ 266,366	$ 279,017	$ 286,798	$ 279,274	$ 271,517	$ 264,458	$ 274,825	$ 295,558	$ 309,813	$ 314,348	$ 314,348	$ 314,348	$ 339,942
20	$ 25,310,590	$ 27,043,006	$ 28,336,347	$ 29,672,680	$ 31,089,409	$ 32,592,307	$ 34,203,227	$ 35,947,599	$ 38,423,798	$ 40,376,056	$ 42,440,641	$ 44,629,102	$ 46,974,463
21													
22	$ 45,637,052	$ 47,587,840	$ 48,023,628	$ 48,471,890	$ 49,037,723	$ 49,723,687	$ 50,471,789	$ 51,353,341	$ 52,966,722	$ 54,056,161	$ 55,257,928	$ 56,583,569	$ 58,066,112
23	$ 44,706,579	$ 46,601,539	$ 46,978,148	$ 47,430,316	$ 48,060,812	$ 49,736,723	$ 52,503,105	$ 54,663,605	$ 56,504,274	$ 57,334,363	$ 58,271,442	$ 61,960,218	$ 68,415,929
24													
25	$ 930,473	$ 986,301	$ 1,045,479	$ 1,041,574	$ 976,912	$ (13,037)	$ (2,031,317)	$ (3,310,263)	$ (3,537,551)	$ (3,278,202)	$ (3,013,515)	$ (5,376,649)	$ (10,349,817)
26	12/31/2013	12/31/2014	12/31/2015	12/31/2016	12/31/2017	12/31/2018	12/31/2019	12/31/2020	12/31/2021	12/31/2022	12/31/2023	12/31/2024	12/31/2025
27													
28													
29													
30													
31	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
32				**Start Phase II**								**Start Phase III**	
33				$ 500,000	$ 1,000,000	$ 8,000,000	$ 16,000,000	$ 11,000,000	$ 3,500,000			$ 19,750,000	$ 40,000,000
34	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 203,078,976	$ 204,078,976	$ 212,078,976	$ 228,078,976	$ 239,078,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 262,328,976	$ 302,328,976
35	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
36	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 203,078,976	$ 204,078,976	$ 212,078,976	$ 228,078,976	$ 239,078,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 262,328,976	$ 302,328,976
37	$ (5,110,443)	$ (10,744,623)	$ (16,396,576)	$ (22,062,480)	$ (27,756,283)	$ (33,673,286)	$ (40,036,689)	$ (46,706,992)	$ (53,474,945)	$ (60,242,897)	$ (67,010,850)	$ (74,329,828)	$ (82,764,806)
38	$ (732,114)	$ (3,915,341)	$ (6,717,677)	$ (9,166,960)	$ (11,288,480)	$ (13,186,459)	$ (15,678,367)	$ (18,290,458)	$ (20,940,788)	$ (23,591,119)	$ (26,241,449)	$ (29,107,561)	$ (32,410,698)
39	$ 185,291,361	$ 187,281,989	$ 179,464,723	$ 171,849,536	$ 165,034,213	$ 165,219,232	$ 172,363,920	$ 174,081,526	$ 168,163,243	$ 158,744,960	$ 149,326,677	$ 158,891,587	$ 187,153,472
40	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
41	$ 20,326,462	$ 20,544,834	$ 19,687,280	$ 18,851,894	$ 18,104,253	$ 18,124,550	$ 18,908,322	$ 19,096,743	$ 18,447,508	$ 17,414,322	$ 16,381,136	$ 17,430,407	$ 20,530,736
42								$ 27,051	$ 661,940				
43	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,556	**$ 28,601,000**	**$ 30,979,000**	$ 32,837,740	$ 34,808,004	$ 36,896,485	$ 39,110,274
44	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
45	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
46	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,556	$ 28,601,000	$ 30,979,000	$ 32,837,740	$ 34,808,004	$ 36,896,485	$ 39,110,274
47	$ 5,110,443	$ 5,634,180	$ 5,651,953	$ 5,665,904	$ 5,693,803	$ 5,917,003	$ 6,363,403	$ 6,670,303	$ 6,767,953	$ 6,767,953	$ 6,767,953	$ 7,318,978	$ 8,434,978
48	$ 266,366	$ 279,017	$ 286,798	$ 279,274	$ 271,517	$ 264,458	$ 274,825	$ 295,558	$ 309,813	$ 314,348	$ 314,348	$ 314,348	$ 339,942
49	$ 24,380,117	$ 26,056,704	$ 27,290,868	$ 28,578,421	$ 29,956,559	$ 31,612,174	$ 33,594,783	$ 35,566,861	$ 38,056,766	$ 39,920,041	$ 41,890,306	$ 44,529,811	$ 47,885,193
50													
51	$ 44,706,579	$ 46,601,539	$ 46,978,148	$ 47,430,316	$ 48,060,812	$ 49,736,723	$ 52,503,105	$ 54,663,605	$ 56,504,274	$ 57,334,363	$ 58,271,442	$ 61,960,218	$ 68,415,929

	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI
1													
2	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	
3	**Start Phase II**												
4	$ 500,000	$ 1,000,000	$ 8,000,000	$ 16,000,000	$ 11,000,000	$ 3,500,000							
5	$ 342,328,976	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	
6	$ (139,250,000)	$ (155,921,024)	$ (147,921,024)	$ (131,921,024)	$ (120,921,024)	$ (117,421,024)	$ (117,421,024)	$ (117,421,024)	$ (117,421,024)	$ (117,421,024)	$ (117,421,024)	$ (117,421,024)	
7	$ 203,078,976	$ 204,078,976	$ 212,078,976	$ 228,078,976	$ 239,078,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	
8	$ (78,582,010)	$ (84,275,813)	$ (90,192,816)	$ (96,556,219)	$ (103,226,522)	$ (109,994,475)	$ (116,762,428)	$ (123,530,381)	$ (130,298,334)	$ (137,066,286)	$ (143,834,239)	$ (150,602,192)	
9	$ (30,772,715)	$ (33,002,408)	$ (35,319,507)	$ (37,811,415)	$ (40,423,506)	$ (43,073,836)	$ (45,724,167)	$ (48,374,497)	$ (51,024,827)	$ (53,675,158)	$ (56,325,488)	$ (58,975,819)	
10	$ 93,724,251	$ 86,800,755	$ 86,566,653	$ 93,711,342	$ 95,428,948	$ 89,510,665	$ 80,092,382	$ 70,674,098	$ 61,255,815	$ 51,837,532	$ 42,419,248	$ 33,000,965	
11	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	
12	$ 10,281,550	$ 9,522,043	$ 9,496,362	$ 10,280,134	$ 10,468,556	$ 9,819,320	$ 8,786,134	$ 7,752,949	$ 6,719,763	$ 5,686,577	$ 4,653,392	$ 3,620,206	$ 343,916,469
13			$ (1,912,962)										
14	$ 41,456,890	$ 43,944,304	**$ 44,668,000**	$ 47,348,080	$ 50,188,965	$ 53,200,303	$ 56,392,321	$ 59,775,860	$ 63,362,412	$ 67,164,156	$ 71,194,006	$ 75,465,646	
15	$ (20,411,115)	$ (21,635,781)	$ (22,933,928)	$ (24,309,964)	$ (25,768,562)	$ (27,314,676)	$ (28,953,556)	$ (30,690,769)	$ (32,532,216)	$ (34,484,149)	$ (36,553,198)	$ (38,746,389)	
16	$ 22,395,747	$ 23,739,492	$ 25,163,861	$ 26,673,693	$ 28,274,114	$ 29,970,561	$ 31,768,795	$ 33,674,922	$ 35,695,418	$ 37,837,143	$ 40,107,371	$ 42,513,814	
17	$ 43,441,522	$ 46,048,014	$ 46,897,933	$ 49,711,809	$ 52,694,517	$ 55,856,188	$ 59,207,559	$ 62,760,013	$ 66,525,614	$ 70,517,151	$ 74,748,180	$ 79,233,071	
18	$ 5,665,903	$ 5,693,803	$ 5,917,003	$ 6,363,403	$ 6,670,303	$ 6,767,953	$ 6,767,953	$ 6,767,953	$ 6,767,953	$ 6,767,953	$ 6,767,953	$ 6,767,953	
19	$ 391,776	$ 443,610	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	
20	$ 49,499,201	$ 52,185,427	$ 53,281,445	$ 56,541,721	$ 59,831,330	$ 63,090,651	$ 66,442,022	$ 69,994,476	$ 73,760,076	$ 77,751,613	$ 81,982,642	$ 86,467,533	
21													
22	$ 59,780,752	$ 61,707,470	$ 62,777,807	$ 66,821,855	$ 70,299,885	$ 72,909,971	$ 75,228,156	$ 77,747,424	$ 80,479,839	$ 83,438,190	$ 86,636,034	$ 90,087,739	$ 1,592,489,388
23	$ 74,860,342	$ 78,297,820	$ 77,511,114	$ 78,657,892	$ 79,965,474	$ 81,443,510	$ 83,102,226	$ 84,952,464	$ 87,005,713	$ 89,274,156	$ 91,770,703	$ 94,509,041	$ 1,731,854,332
24													
25	$ (15,079,590)	$ (16,590,350)	$ (14,733,307)	$ (11,836,036)	$ (9,665,589)	$ (8,533,540)	$ (7,874,070)	$ (7,205,039)	$ (6,525,874)	$ (5,835,965)	$ (5,134,669)	$ (4,421,302)	**$ (139,364,944)**
26	12/31/2026	12/31/2027	12/31/2028	12/31/2029	12/31/2030	12/31/2031	12/31/2032	12/31/2033	12/31/2034	12/31/2035	12/31/2036	12/31/2037	
27													$ (139,364,944)
28													
29													
30													
31	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	
32													
33	$ 40,000,000	$ 17,671,024											$ 117,421,024
34	$ 342,328,976	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	
35	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
36	$ 342,328,976	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	$ 360,000,000	
37	$ (92,315,784)	$ (102,359,783)	$ (112,403,782)	$ (122,447,782)	$ (132,491,781)	$ (142,535,780)	$ (152,579,779)	$ (162,623,779)	$ (172,667,778)	$ (182,711,777)	$ (192,755,777)	$ (202,799,776)	
38	$ (36,150,861)	$ (40,084,091)	$ (44,017,321)	$ (47,950,551)	$ (51,883,781)	$ (55,817,012)	$ (59,750,242)	$ (63,683,472)	$ (67,616,702)	$ (71,549,932)	$ (75,483,162)	$ (79,416,392)	
39	$ 213,862,331	$ 217,556,126	$ 203,578,896	$ 189,601,667	$ 175,624,438	$ 161,647,208	$ 147,669,979	$ 133,692,750	$ 119,715,520	$ 105,738,291	$ 91,761,061	$ 77,783,832	
40	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	
41	$ 23,460,698	$ 23,865,907	$ 22,332,605	$ 20,799,303	$ 19,266,001	$ 17,732,699	$ 16,199,397	$ 14,666,095	$ 13,132,793	$ 11,599,490	$ 10,066,188	$ 8,532,886	$ 482,133,777
42			$ (1,912,962)										
43	$ 41,456,890	$ 43,944,304	**$ 44,668,000**	$ 47,348,080	$ 50,188,965	$ 53,200,303	$ 56,392,321	$ 59,775,860	$ 63,362,412	$ 67,164,156	$ 71,194,006	$ 75,465,646	
44	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
45	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
46	$ 41,456,890	$ 43,944,304	$ 44,668,000	$ 47,348,080	$ 50,188,965	$ 53,200,303	$ 56,392,321	$ 59,775,860	$ 63,362,412	$ 67,164,156	$ 71,194,006	$ 75,465,646	
47	$ 9,550,978	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	$ 10,043,999	
48	$ 391,776	$ 443,610	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	$ 466,510	
49	$ 51,399,644	$ 54,431,913	$ 55,178,509	$ 57,858,589	$ 60,699,474	$ 63,710,812	$ 66,902,830	$ 70,286,369	$ 73,872,921	$ 77,674,665	$ 81,704,515	$ 85,976,155	$ 1,249,720,555
50													
51	$ 74,860,342	$ 78,297,820	$ 77,511,114	$ 78,657,892	$ 79,965,474	$ 81,443,510	$ 83,102,226	$ 84,952,464	$ 87,005,713	$ 89,274,156	$ 91,770,703	$ 94,509,041	$ 1,731,854,332

	A	B	C	D	E	F	G	H	I
52	Total E(m) Gypsum to On-site Landfill per KU					$ 565,309	$ 5,226,225	$ 11,769,378	$ 19,773,528
53									
54	Calculation Check Difference					$ -	$ 336	$ 763	$ 1,285
55									
56									
57	Site E/F	Hauling cost of Ash 2.25 mile round trip							
58		Haul Road Maintenance							
59	Total								
60	Reduce by 50% for Site M					$ -	$ -	$ -	$ -
61	**Difference**		**PVRR**	**7.81%**	**$ (21,865,903)**				

	J	K	L	M	N	O	P	Q	R	S	T	U	V
52	$ 44,705,239	$ 46,600,208	$ 46,976,843	$ 47,458,553	$ 48,044,547	$ 48,653,648							
53													
54	$ 1,340	$ 1,331	$ 1,305	$ (28,237)	$ 16,265	$ 1,083,075							
55													
56													
57	$ 2,822,723	$ 2,992,086	$ 3,171,612	$ 3,361,908	$ 3,563,623	$ 3,777,440	$ 4,004,087	$ 4,244,332	$ 4,498,992	$ 4,768,931	$ 5,055,067	$ 5,358,371	$ 5,679,873
58	$ 53,529	$ 56,741	$ 60,145	$ 63,754	$ 67,579	$ 71,634	$ 75,932	$ 80,488	$ 85,317	$ 90,436	$ 95,862	$ 101,614	$ 107,711
59	$ 2,876,252	$ 3,048,827	$ 3,231,757	$ 3,425,662	$ 3,631,202	$ 3,849,074	$ 4,080,018	$ 4,324,820	$ 4,584,309	$ 4,859,367	$ 5,150,929	$ 5,459,985	$ 5,787,584
60	$ 1,438,126	$ 1,524,414	$ 1,615,878	$ 1,712,831	$ 1,815,601	$ 1,924,537	$ 2,040,009	$ 2,162,410	$ 2,292,154	$ 2,429,684	$ 2,575,465	$ 2,729,993	$ 2,893,792
61													

	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI
52													
53													
54													
55													
56													
57	$ 6,020,666	$ 6,381,906	$ 6,764,820	$ 7,170,709	$ 7,600,952	$ 8,057,009	$ 8,540,429	$ 9,052,855	$ 9,596,026	$ 10,171,788	$ 10,782,095	$ 11,429,021	
58	$ 114,174	$ 121,024	$ 128,285	$ 135,982	$ 144,141	$ 152,790	$ 161,957	$ 171,675	$ 181,975	$ 192,894	$ 204,467	$ 216,735	
59	$ 6,134,839	$ 6,502,930	$ 6,893,105	$ 7,306,692	$ 7,745,093	$ 8,209,799	$ 8,702,387	$ 9,224,530	$ 9,778,002	$ 10,364,682	$ 10,986,563	$ 11,645,756	
60	$ 3,067,420	$ 3,251,465	$ 3,446,553	$ 3,653,346	$ 3,872,547	$ 4,104,899	$ 4,351,193	$ 4,612,265	$ 4,889,001	$ 5,182,341	$ 5,493,281	$ 5,822,878	
61													

Cell: D16
Comment: John Walters:
Insert $9.00 for Limestone Backhaul calculation

	A	B	C	D	E	F	G	H	I
1		**Annual Revenue Requirements - Ghent Landfill - KU Project 30**							
2									
3		Capital					O&M		
4									
5									Beneficial
6		Phase 1	Phase 2	Phase 3	Final Cap	Total	Non-Power	Power	Reuse
7	12/31/2009	480,509	-	-		480,509		84,800	
8	12/31/2010	5,098,729	-	-		5,098,729		127,832	
9	12/31/2011	11,571,793	-	-		11,571,793		198,348	
10	12/31/2012	19,480,236	-	-		19,480,236		294,577	
11	12/31/2013	20,326,462	-	-		20,326,462		24,380,117	
12	12/31/2014	20,544,834	-	-		20,544,834		26,056,704	
13	12/31/2015	19,687,280	-	-		19,687,280		27,290,868	
14	12/31/2016	18,799,210	52,684	-		18,851,894		28,578,421	
15	12/31/2017	17,948,314	155,939	-		18,104,253		29,956,559	
16	12/31/2018	17,131,380	993,170	-		18,124,550		31,612,174	
17	12/31/2019	16,268,561	2,639,761	-		18,908,322		33,594,783	
18	12/31/2020	15,405,743	3,691,001	-		19,096,743		35,566,861	
19	12/31/2021	14,542,924	3,904,584	-		18,447,508		38,056,766	
20	12/31/2022	13,680,105	3,734,217	-		17,414,322		39,920,041	
21	12/31/2023	12,817,286	3,563,850	-		16,381,136		41,890,306	
22	12/31/2024	11,954,467	3,393,483	2,082,456		17,430,407		44,529,811	
23	12/31/2025	11,091,649	3,223,116	6,215,971		20,530,736		47,885,193	
24	12/31/2026	10,228,830	3,052,749	10,179,118		23,460,698		51,399,644	
25	12/31/2027	9,366,011	2,882,383	11,617,513		23,865,907		54,431,913	
26	12/31/2028	8,503,192	2,712,016	11,117,397		22,332,605		55,178,509	
27	12/31/2029	7,640,374	2,541,649	10,617,281		20,799,303		57,858,589	
28	12/31/2030	6,777,555	2,371,282	10,117,164		19,266,001		60,699,474	
29	12/31/2031	5,914,736	2,200,915	9,617,048		17,732,699		63,710,812	
30	12/31/2032	5,051,917	2,030,548	9,116,931		16,199,397		66,902,830	
31	12/31/2033	4,189,098	1,860,181	8,616,815		14,666,095		70,286,369	
32	12/31/2034	3,326,280	1,689,814	8,116,699		13,132,793		73,872,921	
33	12/31/2035	2,463,461	1,519,447	7,616,582		11,599,490		77,674,665	

	J	K
1		
2		
3		Total
4		
5	Total	
6	O&M	
7	84,800	565,309
8	127,832	5,226,561
9	198,348	11,770,141
10	294,577	19,774,813
11	24,380,117	44,706,579
12	26,056,704	46,601,539
13	27,290,868	46,978,148
14	28,578,421	47,430,316
15	29,956,559	48,060,812
16	31,612,174	49,736,723
17	33,594,783	52,503,105
18	35,566,861	54,663,605
19	38,056,766	56,504,274
20	39,920,041	57,334,363
21	41,890,306	58,271,442
22	44,529,811	61,960,218
23	47,885,193	68,415,929
24	51,399,644	74,860,342
25	54,431,913	78,297,820
26	55,178,509	77,511,114
27	57,858,589	78,657,892
28	60,699,474	79,965,474
29	63,710,812	81,443,510
30	66,902,830	83,102,226
31	70,286,369	84,952,464
32	73,872,921	87,005,713
33	77,674,665	89,274,156

	A	B	C	D	E	F	G	H	I
34	12/31/2036	1,600,642	1,349,080	7,116,466		10,066,188		81,704,515	
35	12/31/2037	737,823	1,178,714	6,616,349		8,532,886		85,976,155	
36	2009 PVRR	153,383,226	14,945,173	24,389,184		192,717,582		354,316,774	
37									
38	Cubic Yards	9,542,500	6,072,500	9,542,500		25,157,500		25,157,500	
39									

	J	K
34	81,704,515	91,770,703
35	85,976,155	94,509,041
36	354,316,774	547,034,356
37		
38	25,157,500	25,157,500
39	$/CY (PVRR)	$ 21.74

	A	B	C	D	E	F	G	H
1		**Annual Revenue Requirements - Ghent Landfill - KU Project 30 with Beneficial Reuse -S**						
2					his option assumes purchase of all gypsum related equipme			
3		Capital					O&	
4								
5								
6		Phase 1	Phase 2	Phase 3	Final Cap	Total	Non-Power	Power
7	12/31/2009	480,509	-	-		480,509		84,800
8	12/31/2010	5,098,729	-	-		5,098,729		127,832
9	12/31/2011	11,571,793	-	-		11,571,793		198,348
10	12/31/2012	19,480,236	-	-		19,480,236		294,577
11	12/31/2013	20,326,462	-	-		20,326,462		24,380,117
12	12/31/2014	20,544,834	-	-		20,544,834		26,056,704
13	12/31/2015	19,687,280	-	-		19,687,280		27,290,868
14	12/31/2016	18,799,210	-	-		18,799,210		28,578,421
15	12/31/2017	17,948,314	-	-		17,948,314		29,956,559
16	12/31/2018	17,131,380	-	-		17,131,380		31,612,174
17	12/31/2019	16,268,561	-	-		16,268,561		33,594,783
18	12/31/2020	15,405,743	-	-		15,405,743		35,566,861
19	12/31/2021	14,542,924	-	-		14,542,924		38,056,766
20	12/31/2022	13,680,105	-	-		13,680,105		39,920,041
21	12/31/2023	12,817,286	-	-		12,817,286		41,890,306
22	12/31/2024	11,954,467	-	-		11,954,467		44,529,811
23	12/31/2025	11,091,649	-	-		11,091,649		47,885,193
24	12/31/2026	10,228,830	52,720	-		10,281,550		51,399,644
25	12/31/2027	9,366,011	156,032	-		9,522,043		54,431,913
26	12/31/2028	8,503,192	993,170	-		9,496,362		55,178,509
27	12/31/2029	7,640,374	2,639,761	-		10,280,134		57,858,589
28	12/31/2030	6,777,555	3,691,001	-		10,468,556		60,699,474
29	12/31/2031	5,914,736	3,904,584	-		9,819,320		63,710,812
30	12/31/2032	5,051,917	3,734,217	-		8,786,134		66,902,830
31	12/31/2033	4,189,098	3,563,850	-		7,752,949		70,286,369
32	12/31/2034	3,326,280	3,393,483	-		6,719,763		73,872,921
33	12/31/2035	2,463,461	3,223,116	-		5,686,577		77,674,665

	I	J	K
1	**terling Ventures Mine**		
2			
3	&M		Total
4			
5	Beneficial	Total	
6	Reuse	O&M	
7	-	84,800	565,309
8	-	127,832	5,226,561
9	-	198,348	11,770,141
10	-	294,577	19,774,813
11	930,473	25,310,590	45,637,052
12	986,301	27,043,006	47,587,840
13	1,045,479	28,336,347	48,023,628
14	1,094,258	29,672,680	48,471,890
15	1,132,851	31,089,409	49,037,723
16	980,133	32,592,307	49,723,687
17	608,444	34,203,227	50,471,789
18	380,737	35,947,599	51,353,341
19	367,033	38,423,798	52,966,722
20	456,015	40,376,056	54,056,161
21	550,336	42,440,641	55,257,928
22	99,291	44,629,102	56,583,569
23	(910,730)	46,974,463	58,066,112
24	(1,900,443)	49,499,201	59,780,752
25	(2,246,486)	52,185,427	61,707,470
26	(1,897,064)	53,281,445	62,777,807
27	(1,316,868)	56,541,721	66,821,855
28	(868,144)	59,831,330	70,299,885
29	(620,161)	63,090,651	72,909,971
30	(460,808)	66,442,022	75,228,156
31	(291,893)	69,994,476	77,747,424
32	(112,844)	73,760,076	80,479,839
33	76,948	77,751,613	83,438,190

	A	B	C	D	E	F	G	H
34	12/31/2036	1,600,642	3,052,749	-		4,653,392		81,704,515
35	12/31/2037	737,823	2,882,383	-		3,620,206		85,976,155
36	2009 PVRR	153,383,226	5,355,077	-		158,738,303		354,316,774
37								
38	Cubic Yards	17,350,000	7,807,500			25,157,500		25,157,500
39								
40				Option 30 with				
41	CASE		Option 30	Benefical Reuse				
42	PVRR							
43	Capital		$ 192,717,582	$ 158,738,303				
44	O&M		354,316,774	356,644,895				
45	Total		$ 547,034,356	$ 515,383,198				
46	Delta to Least Cost		**$ 31,651,158**	Least Cost				
47								
48	Unit Cost (2009 PVRR $/CY)		$ 21.74	$ 20.49				

	I	J	K
34	278,128	81,982,642	86,636,034
35	491,378	86,467,533	90,087,739
36	2,328,121	356,644,895	515,383,198
37			
38		25,157,500	25,157,500
39		$/CY (PVRR)	$ 20.49
40			
41			
42			
43			
44			
45			
46			
47			
48			

	A	B	C	D	E	F	G	H
1	NOTE-This Table	**Annual Revenue Requirements - Ghent Landfill - KU Project 30 with Beneficial Reuse -Sterling Ventures**						
2	Requires $9.00				his option assumes purchase of all gypsum related equipme			
3	Price Inserted	Capital					O&	
4	into cell D16 of							
5	PVRR Analysis							
6		Phase 1	Phase 2	Phase 3	Final Cap	Total	Non-Power	Power
7	12/31/2009	480,509	-	-		480,509		84,800
8	12/31/2010	5,098,729	-	-		5,098,729		127,832
9	12/31/2011	11,571,793	-	-		11,571,793		198,348
10	12/31/2012	19,480,236	-	-		19,480,236		294,577
11	12/31/2013	20,326,462	-	-		20,326,462		24,380,117
12	12/31/2014	20,544,834	-	-		20,544,834		26,056,704
13	12/31/2015	19,687,280	-	-		19,687,280		27,290,868
14	12/31/2016	18,799,210	-	-		18,799,210		28,578,421
15	12/31/2017	17,948,314	-	-		17,948,314		29,956,559
16	12/31/2018	17,131,380	-	-		17,131,380		31,612,174
17	12/31/2019	16,268,561	-	-		16,268,561		33,594,783
18	12/31/2020	15,405,743	-	-		15,405,743		35,566,861
19	12/31/2021	14,542,924	-	-		14,542,924		38,056,766
20	12/31/2022	13,680,105	-	-		13,680,105		39,920,041
21	12/31/2023	12,817,286	-	-		12,817,286		41,890,306
22	12/31/2024	11,954,467	-	-		11,954,467		44,529,811
23	12/31/2025	11,091,649	-	-		11,091,649		47,885,193
24	12/31/2026	10,228,830	52,720	-		10,281,550		51,399,644
25	12/31/2027	9,366,011	156,032	-		9,522,043		54,431,913
26	12/31/2028	8,503,192	993,170	-		9,496,362		55,178,509
27	12/31/2029	7,640,374	2,639,761	-		10,280,134		57,858,589
28	12/31/2030	6,777,555	3,691,001	-		10,468,556		60,699,474
29	12/31/2031	5,914,736	3,904,584	-		9,819,320		63,710,812
30	12/31/2032	5,051,917	3,734,217	-		8,786,134		66,902,830
31	12/31/2033	4,189,098	3,563,850	-		7,752,949		70,286,369
32	12/31/2034	3,326,280	3,393,483	-		6,719,763		73,872,921
33	12/31/2035	2,463,461	3,223,116	-		5,686,577		77,674,665

	I	J	K
1	**Mine With Scrubber Stone Backhaul**		
2			
3	&M		Total
4			
5	Beneficial	Total	
6	Reuse	O&M	
7	-	84,800	565,309
8	-	127,832	5,226,561
9	-	198,348	11,770,141
10	-	294,577	19,774,813
11	930,473	25,310,590	45,637,052
12	986,301	27,043,006	47,587,840
13	1,045,479	28,336,347	48,023,628
14	1,094,258	29,672,680	48,471,890
15	1,132,851	31,089,409	49,037,723
16	980,133	32,592,307	49,723,687
17	608,444	34,203,227	50,471,789
18	380,737	35,947,599	51,353,341
19	367,033	38,423,798	52,966,722
20	456,015	40,376,056	54,056,161
21	550,336	42,440,641	55,257,928
22	99,291	44,629,102	56,583,569
23	(910,730)	46,974,463	58,066,112
24	(1,900,443)	49,499,201	59,780,752
25	(2,246,486)	52,185,427	61,707,470
26	(1,897,064)	53,281,445	62,777,807
27	(1,316,868)	56,541,721	66,821,855
28	(868,144)	59,831,330	70,299,885
29	(620,161)	63,090,651	72,909,971
30	(460,808)	66,442,022	75,228,156
31	(291,893)	69,994,476	77,747,424
32	(112,844)	73,760,076	80,479,839
33	76,948	77,751,613	83,438,190

	A	B	C	D	E	F	G	H
34	12/31/2036	1,600,642	3,052,749	-		4,653,392		81,704,515
35	12/31/2037	737,823	2,882,383	-		3,620,206		85,976,155
36	2009 PVRR	153,383,226	5,355,077	-		158,738,303		354,316,774
37								
38	Cubic Yards	17,350,000	7,807,500			25,157,500		25,157,500
39								
40				Option 30 with				
41	CASE		Option 30	Benefical Reuse				
42	PVRR							
43	Capital		$ 192,717,582	$ 158,738,303				
44	O&M		354,316,774	356,644,895				
45	Total		$ 547,034,356	$ 515,383,198				
46	Delta to Least Cost		**$ 31,651,158**	Least Cost				
47								
48	Unit Cost (2009 PVRR $/CY)		$ 21.74	$ 20.49				

	I	J	K
34	278,128	81,982,642	86,636,034
35	491,378	86,467,533	90,087,739
36	2,328,121	356,644,895	515,383,198
37			
38		25,157,500	25,157,500
39		$/CY (PVRR)	$ 20.49
40			
41			
42			
43			
44			
45			
46			
47			
48			

	A	B	C	D	E	F	G	H	I
1		Dry	Gypsum	Gypsum	Operation and	Phase II	Phase III	Total	Hauling
2		Gypsum	Fines	Dewatering	Maintenance	Construction	Construction	Capital Cost	Gypsum to
3		Handling	Project	Facility	Dry Gypsum				Landfill
4		System		Earthwork	Handling				
5					System				
6									
7	12/31/2010	$ 7,790,000	$ 6,300,000	$ -	$ -	$ -	$ -	$ 14,090,000	$ -
8	12/31/2011	$ 15,960,000	$ 6,300,000	$ 371,000	$ -	$ -	$ -	$ 22,631,000	$ -
9	12/30/2012	$ 13,050,000	$ -	$ -	$ -	$ -	$ -	$ 13,050,000	$ -
10	12/30/2013	$ -	$ -	$ -	$ 682,495	$ -	$ -	$ 682,495	$ 8,887,032
11	12/30/2014	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 9,420,254
12	12/30/2015	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 9,985,469
13	12/29/2016	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 10,584,598
14	12/29/2017	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 11,219,674
15	12/29/2018	$ -	$ -	$ -	$ -	$ 40,000,000	$ -	$ 40,000,000	$ 11,892,854
16	12/29/2019	$ -	$ -	$ -	$ -	$ 20,000,000	$ -	$ 20,000,000	$ 12,606,426
17	12/28/2020	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 13,362,811
18	12/28/2021	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 14,164,580
19	12/28/2022	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 15,014,455
20	12/28/2023	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 15,915,322
21	12/27/2024	$ -	$ -	$ -	$ -	$ -	$ 40,000,000	$ 40,000,000	$ 16,870,241
22	12/27/2025	$ -	$ -	$ -	$ -	$ -	$ 40,000,000	$ 40,000,000	$ 17,882,456
23	12/27/2026	$ -	$ -	$ -	$ -	$ -	$ 20,000,000	$ 20,000,000	$ 18,955,403
24	12/27/2027	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 20,092,727
25	12/26/2028	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 21,298,291
26	12/26/2029	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 22,576,188
27	12/26/2030	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 23,930,760
28	12/26/2031	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 25,366,605
29	12/25/2032	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 26,888,602
30	12/25/2033	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 28,501,918
31	12/25/2034	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 30,212,033
32	12/25/2035	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 32,024,755

	J	K	L	M	N	O
1	Total	Discount	Haul	Phase III		Discount
2	Cost Gypsum	Rate	Gypsum	Construction		Rate
3	to Ghent	6.70%	to Sterling			6.70%
4	Landfill					
5						
6		PVRR				PVRR
7	$ 14,090,000	$ 289,828,563	$ -	$ -	$ -	$ 252,258,836
8	$ 22,631,000		$ -	$ -	$ -	
9	$ 13,050,000		$ -	$ -	$ -	
10	$ 9,569,527		$ 11,236,000	$ -	$ 11,236,000	
11	$ 9,420,254		$ 11,910,160	$ -	$ 11,910,160	
12	$ 9,985,469		$ 12,624,770	$ -	$ 12,624,770	
13	$ 10,584,598		$ 13,382,256	$ -	$ 13,382,256	
14	$ 11,219,674		$ 14,185,191	$ -	$ 14,185,191	
15	$ 51,892,854		$ 15,036,303	$ -	$ 15,036,303	
16	$ 32,606,426		$ 15,938,481	$ -	$ 15,938,481	
17	$ 13,362,811		$ 16,894,790	$ -	$ 16,894,790	
18	$ 14,164,580		$ 17,908,477	$ -	$ 17,908,477	
19	$ 15,014,455		$ 18,982,986	$ -	$ 18,982,986	
20	$ 15,915,322		$ 20,121,965	$ -	$ 20,121,965	
21	$ 56,870,241		$ 21,329,283	$ 40,000,000	$ 61,329,283	
22	$ 57,882,456		$ 22,609,040	$ 40,000,000	$ 62,609,040	
23	$ 38,955,403		$ 23,965,582	$ 20,000,000	$ 43,965,582	
24	$ 20,092,727		$ 25,403,517	$ -	$ 25,403,517	
25	$ 21,298,291		$ 26,927,728	$ -	$ 26,927,728	
26	$ 22,576,188		$ 28,543,392	$ -	$ 28,543,392	
27	$ 23,930,760		$ 30,255,995	$ -	$ 30,255,995	
28	$ 25,366,605		$ 32,071,355	$ -	$ 32,071,355	
29	$ 26,888,602		$ 33,995,636	$ -	$ 33,995,636	
30	$ 28,501,918		$ 36,035,374	$ -	$ 36,035,374	
31	$ 30,212,033		$ 38,197,497	$ -	$ 38,197,497	
32	$ 32,024,755		$ 40,489,346	$ -	$ 40,489,346	

	A	B	C	D	E	F	G	H	I
33	12/24/2036	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 33,946,240
34	12/24/2037	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 35,983,014
35		$ 36,800,000	$ 12,600,000	$ 371,000	$ 682,495	$ 60,000,000	$ 100,000,000	$ 210,453,495	$ 487,582,709
36					$ 50,453,495		$ 160,000,000		

	J	K	L	M	N	O
33	$ 33,946,240		$ 42,918,707	$ -	$ 42,918,707	
34	$ 35,983,014		$ 45,493,830	$ -	$ 45,493,830	
35	$ 698,036,204		$ 616,457,657	$ 100,000,000	$ 716,457,657	
36						

	A	B	C	D
1	PHASE 1 ONLY			
2	Gypsum Disposal at Sterling Materials			
3				
4	Revenue Requirement			
5	Eligible Plant			
6	Less Gypsum Plant Requirements/Phase Delays			
7	Revised Eligible Plant			
8	Less Accumulated Depreciation			
9	Less Deferred Tax Balance			
10	Environmental Compliance Rate Base			
11	Rate of Return			
12		Assumed	Tons (1.155)	1,000,000
13		86.7500%	Cubic yards	867,500
14	Operating Expenses			
15	less Gypsum to On-site Landfill			
16	Gypsum to Sterling			**$ 10.50**
17	Net Operating			
18	Annual Depreciation			
19	Annual Property Tax Expense			
20	Total OE			
21				
22	Total E(m) Gypsum to Sterling			
23	Total E(m) - Project 30 (See below)			
24				
25	**Difference**		**PVRR**	**7.81%**
26	Date			
27				
28	Revenue Requirments Summary			
29	2009 Amended Plan			
30	Project 30		Ghent Landfill Phase I	
31	See Exhibit B			
32				

	E	F	G	H	I	J	K	L	M
1									
2		2009	2010	2011	2012	2013	2014	2015	2016
3									
4									
5		$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 202,578,976
6		$ -							$ -
7		$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 202,578,976
8						$ (5,110,443)	$ (10,744,623)	$ (16,396,576)	$ (22,048,530)
9						$ (732,114)	$ (3,915,341)	$ (6,717,677)	$ (9,161,164)
10		$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 185,291,361	$ 187,281,989	$ 179,464,723	$ 171,369,282
11		11.1%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
12		$ 480,509	$ 5,098,729	$ 11,571,793	$ 19,480,236	$ 20,326,462	$ 20,544,834	$ 19,687,280	$ 18,799,210
13									
14		$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244
15						$ (9,569,527)	$ (10,143,699)	$ (10,752,321)	$ (11,397,460)
16						$ 10,500,000	$ 11,130,000	$ 11,797,800	$ 12,505,668
17		$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,933,781	$ 21,129,808	$ 22,397,596	$ 23,741,452
18						$ 5,110,443	$ 5,634,180	$ 5,651,953	$ 5,651,954
19			$ 6,483	$ 69,718	$ 158,229	$ 266,366	$ 279,017	$ 286,798	$ 279,274
20		$ 84,800	$ 127,832	$ 198,348	$ 294,577	$ 25,310,590	$ 27,043,006	$ 28,336,347	$ 29,672,680
21									
22	$ 507,821,049	$ 565,309	$ 5,226,561	$ 11,770,141	$ 19,774,813	$ 45,637,052	$ 47,587,840	$ 48,023,628	$ 48,471,890
23	$ 493,914,773	$ 565,309	$ 5,226,225	$ 11,769,378	$ 19,773,528	$ 44,705,239	$ 46,600,208	$ 46,976,843	$ 47,458,553
24									
25	**$ 13,906,277**	$ -	$ 336	$ 763	$ 1,285	$ 931,813	$ 987,632	$ 1,046,785	$ 1,013,337
26		12/31/2009	12/31/2010	12/31/2011	12/31/2012	12/31/2013	12/31/2014	12/31/2015	12/31/2016
27									
28									
29									
30									
31		2009	2010	2011	2012	2013	2014	2015	2016
32									**Start Phase II**

	N	O	P	Q	R	S	T	U
1								
2	2017	2018	2019	2020	2021	2022	2023	2024
3								
4								
5	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976
6	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
7	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976
8	$ (27,700,483)	$ (33,352,436)	$ (39,004,389)	$ (44,656,342)	$ (50,308,295)	$ (55,960,248)	$ (61,612,201)	$ (67,264,154)
9	$ (11,265,786)	$ (13,060,814)	$ (15,274,119)	$ (17,487,423)	$ (19,700,728)	$ (21,914,033)	$ (24,127,338)	$ (26,340,643)
10	$ 163,612,707	$ 156,165,726	$ 148,300,469	$ 140,435,211	$ 132,569,953	$ 124,704,695	$ 116,839,437	$ 108,974,180
11	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
12	$ 17,948,314	$ 17,131,380	$ 16,268,561	$ 15,405,743	$ 14,542,924	$ 13,680,105	$ 12,817,286	$ 11,954,467
13				$ 27,051	$ 661,940			
14	$ 23,991,239	$ 25,430,713	$ 26,956,556	**$ 28,601,000**	**$ 30,979,000**	$ 32,837,740	$ 34,808,004	$ 36,896,485
15	$ (12,081,307)	$ (12,806,186)	$ (13,574,557)	$ (14,389,030)	$ (15,252,372)	$ (16,167,515)	$ (17,137,565)	$ (18,165,819)
16	$ 13,256,008	$ 14,051,369	$ 14,894,451	$ 15,788,118	$ 16,735,405	$ 17,739,529	$ 18,803,901	$ 19,932,135
17	$ 25,165,940	$ 26,675,896	$ 28,276,450	$ 30,000,087	$ 32,462,033	$ 34,409,755	$ 36,474,340	$ 38,662,800
18	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953
19	$ 270,848	$ 262,514	$ 262,514	$ 262,514	$ 262,514	$ 262,514	$ 262,514	$ 262,514
20	$ 31,088,741	$ 32,590,363	$ 34,190,917	$ 35,914,554	$ 38,376,500	$ 40,324,222	$ 42,388,807	$ 44,577,267
21								
22	$ 49,037,055	$ 49,721,743	$ 50,459,478	$ 51,320,297	$ 52,919,423	$ 54,004,327	$ 55,206,093	$ 56,531,735
23	$ 48,044,547	$ 48,653,648	$ 49,139,584	$ 49,921,210	$ 51,436,391	$ 52,432,312	$ 53,539,758	$ 54,765,419
24								
25	$ 992,508	$ 1,068,095	$ 1,319,894	$ 1,399,087	$ 1,483,033	$ 1,572,015	$ 1,666,335	$ 1,766,316
26	12/31/2017	12/31/2018	12/31/2019	12/31/2020	12/31/2021	12/31/2022	12/31/2023	12/31/2024
27								
28								
29								
30								
31	2017	2018	2019	2020	2021	2022	2023	2024
32								**Start Phase III**

	V	W	X	Y	Z	AA	AB	AC
1								
2	2025	2026	2027	2028	2029	2030	2031	2032
3		**Start Phase II**						
4								
5	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976
6	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
7	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976
8	$ (72,916,107)	$ (78,568,060)	$ (84,220,013)	$ (89,871,966)	$ (95,523,919)	$ (101,175,872)	$ (106,827,825)	$ (112,479,778)
9	$ (28,553,947)	$ (30,767,252)	$ (32,980,557)	$ (35,193,862)	$ (37,407,167)	$ (39,620,471)	$ (41,833,776)	$ (44,047,081)
10	$ 101,108,922	$ 93,243,664	$ 85,378,406	$ 77,513,148	$ 69,647,890	$ 61,782,633	$ 53,917,375	$ 46,052,117
11	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
12	$ 11,091,649	$ 10,228,830	$ 9,366,011	$ 8,503,192	$ 7,640,374	$ 6,777,555	$ 5,914,736	$ 5,051,917
13				$ (1,912,962)				
14	$ 39,110,274	$ 41,456,890	$ 43,944,304	**$ 44,668,000**	$ 47,348,080	$ 50,188,965	$ 53,200,303	$ 56,392,321
15	$ (19,255,768)	$ (20,411,115)	$ (21,635,781)	$ (22,933,928)	$ (24,309,964)	$ (25,768,562)	$ (27,314,676)	$ (28,953,556)
16	$ 21,128,063	$ 22,395,747	$ 23,739,492	$ 25,163,861	$ 26,673,693	$ 28,274,114	$ 29,970,561	$ 31,768,795
17	$ 40,982,568	$ 43,441,522	$ 46,048,014	$ 46,897,933	$ 49,711,809	$ 52,694,517	$ 55,856,188	$ 59,207,559
18	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953
19	$ 262,514	$ 262,514	$ 262,514	$ 262,514	$ 262,514	$ 262,514	$ 262,514	$ 262,514
20	$ 46,897,035	$ 49,355,989	$ 51,962,481	$ 52,812,400	$ 55,626,276	$ 58,608,984	$ 61,770,655	$ 65,122,027
21								
22	$ 57,988,684	$ 59,584,819	$ 61,328,492	$ 61,315,592	$ 63,266,649	$ 65,386,539	$ 67,685,391	$ 70,173,944
23	$ 56,116,389	$ 57,600,187	$ 59,224,782	$ 59,085,659	$ 60,902,921	$ 62,880,987	$ 65,029,506	$ 67,358,705
24								
25	$ 1,872,294	$ 1,984,632	$ 2,103,710	$ 2,229,933	$ 2,363,729	$ 2,505,552	$ 2,655,886	$ 2,815,239
26	12/31/2025	12/31/2026	12/31/2027	12/31/2028	12/31/2029	12/31/2030	12/31/2031	12/31/2032
27								
28								
29								
30								
31	2025	2026	2027	2028	2029	2030	2031	2032
32								

	AD	AE	AF	AG	AH	AI
1						
2	2033	2034	2035	2036	2037	
3						
4						
5	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	
6	$ -	$ -	$ -	$ -	$ -	
7	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	
8	$ (118,131,731)	$ (123,783,684)	$ (129,435,637)	$ (135,087,590)	$ (140,739,543)	
9	$ (46,260,386)	$ (48,473,691)	$ (50,686,995)	$ (52,900,300)	$ (55,113,605)	
10	$ 38,186,859	$ 30,321,601	$ 22,456,344	$ 14,591,086	$ 6,725,828	
11	10.97%	10.97%	10.97%	10.97%	10.97%	
12	$ 4,189,098	$ 3,326,280	$ 2,463,461	$ 1,600,642	$ 737,823	$ 312,629,403
13						
14	$ 59,775,860	$ 63,362,412	$ 67,164,156	$ 71,194,006	$ 75,465,646	
15	$ (30,690,769)	$ (32,532,216)	$ (34,484,149)	$ (36,553,198)	$ (38,746,389)	
16	$ 33,674,922	$ 35,695,418	$ 37,837,143	$ 40,107,371	$ 42,513,814	
17	$ 62,760,013	$ 66,525,614	$ 70,517,151	$ 74,748,180	$ 79,233,071	
18	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953	
19	$ 262,514	$ 262,514	$ 262,514	$ 262,514	$ 262,514	
20	$ 68,674,480	$ 72,440,081	$ 76,431,618	$ 80,662,647	$ 85,147,538	
21						
22	$ 72,863,579	$ 75,766,361	$ 78,895,079	$ 82,263,289	$ 85,885,361	$ 1,548,661,161
23	$ 69,879,426	$ 72,603,158	$ 75,542,084	$ 78,709,115	$ 82,117,936	$ 1,498,059,007
24						
25	$ 2,984,153	$ 3,163,202	$ 3,352,994	$ 3,554,174	$ 3,767,424	**$ 50,602,154**
26	12/31/2033	12/31/2034	12/31/2035	12/31/2036	12/31/2037	
27						$ 50,602,154
28						
29						
30						
31	2033	2034	2035	2036	2037	
32						

	A	B	C	D
33	Revenue Requirement			
34	Eligible Plant			
35	Less Gypsum Plant Requirements/Phase Delays			
36	Revised Eligible Plant			
37	Less Accumulated Depreciation			
38	Less Deferred Tax Balance			
39	Environmental Compliance Rate Base			
40	Rate of Return			
41				
42				
43	Operating Expenses			
44	less Gypsum to On-site Landfill			
45	Gypsum to Sterling			
46	Net Operating			
47	Annual Depreciation			
48	Annual Property Tax Expense			
49	Total OE			
50				
51	Total E(m) Gypsum to On-site Landfill as Calculated			
52	Total E(m) Gypsum to On-site Landfill per KU			
53				
54	Calculation Check Difference			
55				
56				
57	Site E/F	Hauling cost of Ash 2.25 mile round trip		
58		Haul Road Maintenance		
59	Total			
60	Reduce by 50% for Site M			
61	**Difference**		**PVRR**	**7.81%**

	E	F	G	H	I	J	K	L	M
33									
34		$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 202,578,976
35		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
36		$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 202,578,976
37						$ (5,110,443)	$ (10,744,623)	$ (16,396,576)	$ (22,048,530)
38						$ (732,114)	$ (3,915,341)	$ (6,717,677)	$ (9,161,164)
39		$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 185,291,361	$ 187,281,989	$ 179,464,723	$ 171,369,282
40		11.1%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
41		$ 480,509	$ 5,098,729	$ 11,571,793	$ 19,480,236	$ 20,326,462	$ 20,544,834	$ 19,687,280	$ 18,799,210
42									
43		$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244
44						$ -	$ -	$ -	$ -
45						$ -	$ -	$ -	$ -
46		$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244
47						$ 5,110,443	$ 5,634,180	$ 5,651,953	$ 5,651,954
48			$ 6,483	$ 69,718	$ 158,229	$ 266,366	$ 279,017	$ 286,798	$ 279,274
49		$ 84,800	$ 127,832	$ 198,348	$ 294,577	$ 24,380,117	$ 26,056,704	$ 27,290,868	$ 28,564,471
50									
51		$ 565,309	$ 5,226,561	$ 11,770,141	$ 19,774,813	$ 44,706,579	$ 46,601,539	$ 46,978,148	$ 47,363,682
52		$ 565,309	$ 5,226,225	$ 11,769,378	$ 19,773,528	$ 44,705,239	$ 46,600,208	$ 46,976,843	$ 47,458,553
53									
54		$ -	$ 336	$ 763	$ 1,285	$ 1,340	$ 1,331	$ 1,305	$ (94,871)
55									
56									
57						$ 2,822,723	$ 2,992,086	$ 3,171,612	$ 3,361,908
58						$ 53,529	$ 56,741	$ 60,145	$ 63,754
59						$ 2,876,252	$ 3,048,827	$ 3,231,757	$ 3,425,662
60		$ -	$ -	$ -	$ -	$ 1,438,126	$ 1,524,414	$ 1,615,878	$ 1,712,831
61	**$ (21,865,903)**								

	N	O	P	Q	R	S	T	U
33								
34	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976
35	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
36	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976
37	$ (27,700,483)	$ (33,352,436)	$ (39,004,389)	$ (44,656,342)	$ (50,308,295)	$ (55,960,248)	$ (61,612,201)	$ (67,264,154)
38	$ (11,265,786)	$ (13,060,814)	$ (15,274,119)	$ (17,487,423)	$ (19,700,728)	$ (21,914,033)	$ (24,127,338)	$ (26,340,643)
39	$ 163,612,707	$ 156,165,726	$ 148,300,469	$ 140,435,211	$ 132,569,953	$ 124,704,695	$ 116,839,437	$ 108,974,180
40	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
41	$ 17,948,314	$ 17,131,380	$ 16,268,561	$ 15,405,743	$ 14,542,924	$ 13,680,105	$ 12,817,286	$ 11,954,467
42				$ 27,051	$ 661,940			
43	$ 23,991,239	$ 25,430,713	$ 26,956,556	**$ 28,601,000**	**$ 30,979,000**	$ 32,837,740	$ 34,808,004	$ 36,896,485
44	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
45	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
46	$ 23,991,239	$ 25,430,713	$ 26,956,556	$ 28,601,000	$ 30,979,000	$ 32,837,740	$ 34,808,004	$ 36,896,485
47	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953
48	$ 270,848	$ 262,514	$ 262,514	$ 262,514	$ 262,514	$ 262,514	$ 262,514	$ 262,514
49	$ 29,914,040	$ 31,345,180	$ 32,871,023	$ 34,515,467	$ 36,893,467	$ 38,752,207	$ 40,722,471	$ 42,810,952
50								
51	$ 47,862,354	$ 48,476,560	$ 49,139,584	$ 49,921,210	$ 51,436,391	$ 52,432,312	$ 53,539,758	$ 54,765,419
52	$ 48,044,547	$ 48,653,648						
53								
54	$ (182,193)	$ (177,088)						
55								
56								
57	$ 3,563,623	$ 3,777,440	$ 4,004,087	$ 4,244,332	$ 4,498,992	$ 4,768,931	$ 5,055,067	$ 5,358,371
58	$ 67,579	$ 71,634	$ 75,932	$ 80,488	$ 85,317	$ 90,436	$ 95,862	$ 101,614
59	$ 3,631,202	$ 3,849,074	$ 4,080,018	$ 4,324,820	$ 4,584,309	$ 4,859,367	$ 5,150,929	$ 5,459,985
60	$ 1,815,601	$ 1,924,537	$ 2,040,009	$ 2,162,410	$ 2,292,154	$ 2,429,684	$ 2,575,465	$ 2,729,993
61								

	V	W	X	Y	Z	AA	AB	AC
33								
34	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976
35	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
36	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976
37	$ (72,916,107)	$ (78,568,060)	$ (84,220,013)	$ (89,871,966)	$ (95,523,919)	$ (101,175,872)	$ (106,827,825)	$ (112,479,778)
38	$ (28,553,947)	$ (30,767,252)	$ (32,980,557)	$ (35,193,862)	$ (37,407,167)	$ (39,620,471)	$ (41,833,776)	$ (44,047,081)
39	$ 101,108,922	$ 93,243,664	$ 85,378,406	$ 77,513,148	$ 69,647,890	$ 61,782,633	$ 53,917,375	$ 46,052,117
40	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
41	$ 11,091,649	$ 10,228,830	$ 9,366,011	$ 8,503,192	$ 7,640,374	$ 6,777,555	$ 5,914,736	$ 5,051,917
42				$ (1,912,962)				
43	$ 39,110,274	$ 41,456,890	$ 43,944,304	**$ 44,668,000**	$ 47,348,080	$ 50,188,965	$ 53,200,303	$ 56,392,321
44	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
45	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
46	$ 39,110,274	$ 41,456,890	$ 43,944,304	$ 44,668,000	$ 47,348,080	$ 50,188,965	$ 53,200,303	$ 56,392,321
47	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953
48	$ 262,514	$ 262,514	$ 262,514	$ 262,514	$ 262,514	$ 262,514	$ 262,514	$ 262,514
49	$ 45,024,741	$ 47,371,357	$ 49,858,771	$ 50,582,467	$ 53,262,547	$ 56,103,432	$ 59,114,770	$ 62,306,788
50								
51	$ 56,116,389	$ 57,600,187	$ 59,224,782	$ 59,085,659	$ 60,902,921	$ 62,880,987	$ 65,029,506	$ 67,358,705
52								
53								
54								
55								
56								
57	$ 5,679,873	$ 6,020,666	$ 6,381,906	$ 6,764,820	$ 7,170,709	$ 7,600,952	$ 8,057,009	$ 8,540,429
58	$ 107,711	$ 114,174	$ 121,024	$ 128,285	$ 135,982	$ 144,141	$ 152,790	$ 161,957
59	$ 5,787,584	$ 6,134,839	$ 6,502,930	$ 6,893,105	$ 7,306,692	$ 7,745,093	$ 8,209,799	$ 8,702,387
60	$ 2,893,792	$ 3,067,420	$ 3,251,465	$ 3,446,553	$ 3,653,346	$ 3,872,547	$ 4,104,899	$ 4,351,193
61								

	AD	AE	AF	AG	AH	AI
33						$ -
34	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	
35	$ -	$ -	$ -	$ -	$ -	
36	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	
37	$ (118,131,731)	$ (123,783,684)	$ (129,435,637)	$ (135,087,590)	$ (140,739,543)	
38	$ (46,260,386)	$ (48,473,691)	$ (50,686,995)	$ (52,900,300)	$ (55,113,605)	
39	$ 38,186,859	$ 30,321,601	$ 22,456,344	$ 14,591,086	$ 6,725,828	
40	10.97%	10.97%	10.97%	10.97%	10.97%	
41	$ 4,189,098	$ 3,326,280	$ 2,463,461	$ 1,600,642	$ 737,823	$ 312,629,403
42						
43	$ 59,775,860	$ 63,362,412	$ 67,164,156	$ 71,194,006	$ 75,465,646	
44	$ -	$ -	$ -	$ -	$ -	
45	$ -	$ -	$ -	$ -	$ -	
46	$ 59,775,860	$ 63,362,412	$ 67,164,156	$ 71,194,006	$ 75,465,646	
47	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953	
48	$ 262,514	$ 262,514	$ 262,514	$ 262,514	$ 262,514	
49	$ 65,690,327	$ 69,276,879	$ 73,078,623	$ 77,108,473	$ 81,380,113	
50						
51	$ 69,879,426	$ 72,603,158	$ 75,542,084	$ 78,709,115	$ 82,117,936	
52						
53						
54						
55						
56						
57	$ 9,052,855	$ 9,596,026	$ 10,171,788	$ 10,782,095	$ 11,429,021	
58	$ 171,675	$ 181,975	$ 192,894	$ 204,467	$ 216,735	
59	$ 9,224,530	$ 9,778,002	$ 10,364,682	$ 10,986,563	$ 11,645,756	
60	$ 4,612,265	$ 4,889,001	$ 5,182,341	$ 5,493,281	$ 5,822,878	
61						

Cell: D16
Comment: John Walters:
Insert $9.00 for Limestone Backhaul calculation

	A	B	C	D
1	Revenue Requirments Summary			
2	Gypsum Disposal at Sterling Materials			
3				
4	Revenue Requirement			
5	Eligible Plant			
6	Less Gypsum Plant Requirements			
7	Revised Eligible Plant			
8	Less Accumulated Depreciation			
9	Less Deferred Tax Balance			
10	Environmental Compliance Rate Base			
11	Rate of Return			
12		Assumed	Tons (1.155)	1,000,000
13		86.7500%	Cubic yards	867,500
14	Operating Expenses			
15	less Gypsum to On-site Landfill			
16	Gypsum to Sterling			**$ 10.50**
17	Net Operating			
18	Annual Depreciation			
19	Annual Property Tax Expense			
20	Total OE			
21				
22	Total E(m) Gypsum to Sterling			
23	Total E(m) - Project 30 (See below)			
24				
25	**Difference**		**PVRR**	**7.81%**
26	Date			
27				
28	Revenue Requirments Summary			
29	2009 Amended Plan			
30	Project 30		Ghent Landfill Phase I	
31	See Exhibit B			
32				
33	Revenue Requirement			

	E	F	G	H	I	J	K	L
1								
2		2009	2010	2011	2012	2013	2014	2015
3								
4								
5		$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976
6		$ -						
7		$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976
8						$ (5,110,443)	$ (10,744,623)	$ (16,396,576)
9						$ (732,114)	$ (3,915,341)	$ (6,717,677)
10		$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 185,291,361	$ 187,281,989	$ 179,464,723
11		11.1%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
12		$ 480,509	$ 5,098,729	$ 11,571,793	$ 19,480,236	$ 20,326,462	$ 20,544,834	$ 19,687,280
13								
14		$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117
15						$ (9,569,527)	$ (10,143,699)	$ (10,752,321)
16						$ 10,500,000	$ 11,130,000	$ 11,797,800
17		$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,933,781	$ 21,129,808	$ 22,397,596
18						$ 5,110,443	$ 5,634,180	$ 5,651,953
19			$ 6,483	$ 69,718	$ 158,229	$ 266,366	$ 279,017	$ 286,798
20		$ 84,800	$ 127,832	$ 198,348	$ 294,577	$ 25,310,590	$ 27,043,006	$ 28,336,347
21								
22	$ 515,054,913	$ 565,309	$ 5,226,561	$ 11,770,141	$ 19,774,813	$ 45,637,052	$ 47,587,840	$ 48,023,628
23	$ 513,750,912	$ 565,309	$ 5,226,225	$ 11,769,378	$ 19,773,528	$ 44,705,239	$ 46,600,208	$ 46,976,843
24								
25	**$ 1,304,001**	$ -	$ 336	$ 763	$ 1,285	$ 931,813	$ 987,632	$ 1,046,785
26		12/31/2009	12/31/2010	12/31/2011	12/31/2012	12/31/2013	12/31/2014	12/31/2015
27								
28								
29								
30								
31		2009	2010	2011	2012	2013	2014	2015
32								
33								

	M	N	O	P	Q	R	S	T
1								
2	2016	2017	2018	2019	2020	2021	2022	2023
3								
4								
5	$ 203,078,976	$ 204,078,976	$ 212,078,976	$ 228,078,976	$ 239,078,976	$ 242,578,976	$ 242,578,976	$ 242,578,976
6	$ (500,000)	$ (1,500,000)	$ (9,500,000)	$ (25,500,000)	$ (36,500,000)	$ (40,000,000)	$ (40,000,000)	$ (40,000,000)
7	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976	$ 202,578,976
8	$ (22,048,530)	$ (27,700,483)	$ (33,352,436)	$ (39,004,389)	$ (44,656,342)	$ (50,308,295)	$ (55,960,248)	$ (61,612,201)
9	$ (9,161,164)	$ (11,265,786)	$ (13,060,814)	$ (15,274,119)	$ (17,487,423)	$ (19,700,728)	$ (21,914,033)	$ (24,127,338)
10	$ 171,369,282	$ 163,612,707	$ 156,165,726	$ 148,300,469	$ 140,435,211	$ 132,569,953	$ 124,704,695	$ 116,839,437
11	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
12	$ 18,799,210	$ 17,948,314	$ 17,131,380	$ 16,268,561	$ 15,405,743	$ 14,542,924	$ 13,680,105	$ 12,817,286
13					$ 27,051	$ 661,940		
14	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,556	**$ 28,601,000**	**$ 30,979,000**	$ 32,837,740	$ 34,808,004
15	$ (11,397,460)	$ (12,081,307)	$ (12,806,186)	$ (13,574,557)	$ (14,389,030)	$ (15,252,372)	$ (16,167,515)	$ (17,137,565)
16	$ 12,505,668	$ 13,256,008	$ 14,051,369	$ 14,894,451	$ 15,788,118	$ 16,735,405	$ 17,739,529	$ 18,803,901
17	$ 23,741,452	$ 25,165,940	$ 26,675,896	$ 28,276,450	$ 30,000,087	$ 32,462,033	$ 34,409,755	$ 36,474,340
18	$ 5,651,954	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953	$ 5,651,953
19	$ 279,274	$ 271,517	$ 264,458	$ 274,825	$ 295,558	$ 309,813	$ 314,348	$ 314,348
20	$ 29,672,680	$ 31,089,409	$ 32,592,307	$ 34,203,227	$ 35,947,599	$ 38,423,798	$ 40,376,056	$ 42,440,641
21								
22	$ 48,471,890	$ 49,037,723	$ 49,723,687	$ 50,471,789	$ 51,353,341	$ 52,966,722	$ 54,056,161	$ 55,257,928
23	$ 47,458,553	$ 48,044,547	$ 48,653,648	$ 52,503,105	$ 54,663,605	$ 56,504,274	$ 57,334,363	$ 58,271,442
24								
25	$ 1,013,337	$ 993,176	$ 1,070,039	$ (2,031,317)	$ (3,310,263)	$ (3,537,551)	$ (3,278,202)	$ (3,013,515)
26	12/31/2016	12/31/2017	12/31/2018	12/31/2019	12/31/2020	12/31/2021	12/31/2022	12/31/2023
27								
28								
29								
30								
31	2016	2017	2018	2019	2020	2021	2022	2023
32	**Start Phase II**							
33	$ 500,000	$ 1,000,000	$ 8,000,000	$ 16,000,000	$ 11,000,000	$ 3,500,000		

	U	V	W	X	Y	Z	AA	AB
1								
2	2024	2025	2026	2027	2028	2029	2030	2031
3			**Start Phase II**					
4			$ 500,000	$ 1,000,000	$ 8,000,000	$ 16,000,000	$ 11,000,000	$ 3,500,000
5	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976
6	$ (40,000,000)	$ (40,000,000)	$ (39,500,000)	$ (38,500,000)	$ (30,500,000)	$ (14,500,000)	$ (3,500,000)	$ -
7	$ 202,578,976	$ 202,578,976	$ 203,078,976	$ 204,078,976	$ 212,078,976	$ 228,078,976	$ 239,078,976	$ 242,578,976
8	$ (67,264,154)	$ (72,916,107)	$ (78,582,010)	$ (84,275,813)	$ (90,192,816)	$ (96,556,219)	$ (103,226,522)	$ (109,994,475)
9	$ (26,340,643)	$ (28,553,947)	$ (30,772,715)	$ (33,002,408)	$ (35,319,507)	$ (37,811,415)	$ (40,423,506)	$ (43,073,836)
10	$ 108,974,180	$ 101,108,922	$ 93,724,251	$ 86,800,755	$ 86,566,653	$ 93,711,342	$ 95,428,948	$ 89,510,665
11	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
12	$ 11,954,467	$ 11,091,649	$ 10,281,550	$ 9,522,043	$ 9,496,362	$ 10,280,134	$ 10,468,556	$ 9,819,320
13					$ (1,912,962)			
14	$ 36,896,485	$ 39,110,274	$ 41,456,890	$ 43,944,304	**$ 44,668,000**	$ 47,348,080	$ 50,188,965	$ 53,200,303
15	$ (18,165,819)	$ (19,255,768)	$ (20,411,115)	$ (21,635,781)	$ (22,933,928)	$ (24,309,964)	$ (25,768,562)	$ (27,314,676)
16	$ 19,932,135	$ 21,128,063	$ 22,395,747	$ 23,739,492	$ 25,163,861	$ 26,673,693	$ 28,274,114	$ 29,970,561
17	$ 38,662,800	$ 40,982,568	$ 43,441,522	$ 46,048,014	$ 46,897,933	$ 49,711,809	$ 52,694,517	$ 55,856,188
18	$ 5,651,953	$ 5,651,953	$ 5,665,903	$ 5,693,803	$ 5,917,003	$ 6,363,403	$ 6,670,303	$ 6,767,953
19	$ 314,348	$ 314,348	$ 314,348	$ 314,348	$ 314,348	$ 314,348	$ 314,348	$ 314,348
20	$ 44,629,102	$ 46,948,870	$ 49,421,774	$ 52,056,165	$ 53,129,284	$ 56,389,560	$ 59,679,169	$ 62,938,490
21								
22	$ 56,583,569	$ 58,040,518	$ 59,703,324	$ 61,578,208	$ 62,625,646	$ 66,669,694	$ 70,147,724	$ 72,757,809
23	$ 59,326,737	$ 60,507,340	$ 61,820,771	$ 63,274,999	$ 62,965,509	$ 64,612,404	$ 66,420,103	$ 68,398,255
24								
25	$ (2,743,168)	$ (2,466,822)	$ (2,117,447)	$ (1,696,791)	$ (339,863)	$ 2,057,291	$ 3,727,621	$ 4,359,554
26	12/31/2024	12/31/2025	12/31/2026	12/31/2027	12/31/2028	12/31/2029	12/31/2030	12/31/2031
27								
28								
29								
30								
31	2024	2025	2026	2027	2028	2029	2030	2031
32	**Start Phase III**							
33								

	AC	AD	AE	AF	AG	AH	AI
1							
2	2032	2033	2034	2035	2036	2037	
3							
4							
5	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	
6	$ -	$ -	$ -	$ -	$ -	$ -	
7	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	
8	$ (116,762,428)	$ (123,530,381)	$ (130,298,334)	$ (137,066,286)	$ (143,834,239)	$ (150,602,192)	
9	$ (45,724,167)	$ (48,374,497)	$ (51,024,827)	$ (53,675,158)	$ (56,325,488)	$ (58,975,819)	
10	$ 80,092,382	$ 70,674,098	$ 61,255,815	$ 51,837,532	$ 42,419,248	$ 33,000,965	
11	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	
12	$ 8,786,134	$ 7,752,949	$ 6,719,763	$ 5,686,577	$ 4,653,392	$ 3,620,206	$ 343,916,469
13							
14	$ 56,392,321	$ 59,775,860	$ 63,362,412	$ 67,164,156	$ 71,194,006	$ 75,465,646	
15	$ (28,953,556)	$ (30,690,769)	$ (32,532,216)	$ (34,484,149)	$ (36,553,198)	$ (38,746,389)	
16	$ 31,768,795	$ 33,674,922	$ 35,695,418	$ 37,837,143	$ 40,107,371	$ 42,513,814	
17	$ 59,207,559	$ 62,760,013	$ 66,525,614	$ 70,517,151	$ 74,748,180	$ 79,233,071	
18	$ 6,767,953	$ 6,767,953	$ 6,767,953	$ 6,767,953	$ 6,767,953	$ 6,767,953	
19	$ 314,348	$ 314,348	$ 314,348	$ 314,348	$ 314,348	$ 314,348	
20	$ 66,289,861	$ 69,842,314	$ 73,607,915	$ 77,599,452	$ 81,830,481	$ 86,315,372	
21							
22	$ 75,075,995	$ 77,595,263	$ 80,327,678	$ 83,286,029	$ 86,483,873	$ 89,935,578	$ 1,590,735,493
23	$ 70,557,087	$ 72,907,441	$ 75,460,807	$ 78,229,366	$ 81,226,030	$ 84,464,484	$ 1,569,221,600
24							
25	$ 4,518,908	$ 4,687,822	$ 4,866,871	$ 5,056,663	$ 5,257,843	$ 5,471,093	**$ 21,513,892**
26	12/31/2032	12/31/2033	12/31/2034	12/31/2035	12/31/2036	12/31/2037	
27							$ 21,513,892
28							
29							
30							
31	2032	2033	2034	2035	2036	2037	
32							
33							$ -

	A	B	C	D
34	Eligible Plant			
35	Less Gypsum Plant Requirements			
36	Revised Eligible Plant			
37	Less Accumulated Depreciation			
38	Less Deferred Tax Balance			
39	Environmental Compliance Rate Base			
40	Rate of Return			
41				
42				
43	Operating Expenses			
44	less Gypsum to On-site Landfill			
45	Gypsum to Sterling			
46	Net Operating			
47	Annual Depreciation			
48	Annual Property Tax Expense			
49	Total OE			
50				
51	Total E(m) Gypsum to On-site Landfill as Calculated			
52	Total E(m) Gypsum to On-site Landfill per KU			
53				
54	Calculation Check Difference			
55				
56				
57	Site E/F	Hauling cost of Ash 2.25 mile round trip		
58		Haul Road Maintenance		
59	Total			
60	Reduce by 50% for Site M			
61	**Difference**		**PVRR**	**7.81%**

	E	F	G	H	I	J	K	L
34		$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976
35		$ -	$ -	$ -	$ -	$ -	$ -	$ -
36		$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976
37						$ (5,110,443)	$ (10,744,623)	$ (16,396,576)
38						$ (732,114)	$ (3,915,341)	$ (6,717,677)
39		$ 4,321,671	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 185,291,361	$ 187,281,989	$ 179,464,723
40		11.1%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
41		$ 480,509	$ 5,098,729	$ 11,571,793	$ 19,480,236	$ 20,326,462	$ 20,544,834	$ 19,687,280
42								
43		$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117
44						$ -	$ -	$ -
45						$ -	$ -	$ -
46		$ 84,800	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117
47						$ 5,110,443	$ 5,634,180	$ 5,651,953
48			$ 6,483	$ 69,718	$ 158,229	$ 266,366	$ 279,017	$ 286,798
49		$ 84,800	$ 127,832	$ 198,348	$ 294,577	$ 24,380,117	$ 26,056,704	$ 27,290,868
50								
51		$ 565,309	$ 5,226,561	$ 11,770,141	$ 19,774,813	$ 44,706,579	$ 46,601,539	$ 46,978,148
52		$ 565,309	$ 5,226,225	$ 11,769,378	$ 19,773,528	$ 44,705,239	$ 46,600,208	$ 46,976,843
53								
54		$ -	$ 336	$ 763	$ 1,285	$ 1,340	$ 1,331	$ 1,305
55								
56								
57						$ 2,822,723	$ 2,992,086	$ 3,171,612
58						$ 53,529	$ 56,741	$ 60,145
59						$ 2,876,252	$ 3,048,827	$ 3,231,757
60		$ -	$ -	$ -	$ -	$ 1,438,126	$ 1,524,414	$ 1,615,878
61	**$ (21,865,903)**							

	M	N	O	P	Q	R	S	T
34	$ 203,078,976	$ 204,078,976	$ 212,078,976	$ 228,078,976	$ 239,078,976	$ 242,578,976	$ 242,578,976	$ 242,578,976
35	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
36	$ 203,078,976	$ 204,078,976	$ 212,078,976	$ 228,078,976	$ 239,078,976	$ 242,578,976	$ 242,578,976	$ 242,578,976
37	$ (22,062,480)	$ (27,756,283)	$ (33,673,286)	$ (40,036,689)	$ (46,706,992)	$ (53,474,945)	$ (60,242,897)	$ (67,010,850)
38	$ (9,166,960)	$ (11,288,480)	$ (13,186,459)	$ (15,678,367)	$ (18,290,458)	$ (20,940,788)	$ (23,591,119)	$ (26,241,449)
39	$ 171,849,536	$ 165,034,213	$ 165,219,232	$ 172,363,920	$ 174,081,526	$ 168,163,243	$ 158,744,960	$ 149,326,677
40	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
41	$ 18,851,894	$ 18,104,253	$ 18,124,550	$ 18,908,322	$ 19,096,743	$ 18,447,508	$ 17,414,322	$ 16,381,136
42					$ 27,051	$ 661,940		
43	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,556	**$ 28,601,000**	**$ 30,979,000**	$ 32,837,740	$ 34,808,004
44	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
45	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
46	$ 22,633,244	$ 23,991,239	$ 25,430,713	$ 26,956,556	$ 28,601,000	$ 30,979,000	$ 32,837,740	$ 34,808,004
47	$ 5,665,904	$ 5,693,803	$ 5,917,003	$ 6,363,403	$ 6,670,303	$ 6,767,953	$ 6,767,953	$ 6,767,953
48	$ 279,274	$ 271,517	$ 264,458	$ 274,825	$ 295,558	$ 309,813	$ 314,348	$ 314,348
49	$ 28,578,421	$ 29,956,559	$ 31,612,174	$ 33,594,783	$ 35,566,861	$ 38,056,766	$ 39,920,041	$ 41,890,306
50								
51	$ 47,430,316	$ 48,060,812	$ 49,736,723	$ 52,503,105	$ 54,663,605	$ 56,504,274	$ 57,334,363	$ 58,271,442
52	$ 47,458,553	$ 48,044,547	$ 48,653,648					
53								
54	$ (28,237)	$ 16,265	$ 1,083,075					
55								
56								
57	$ 3,361,908	$ 3,563,623	$ 3,777,440	$ 4,004,087	$ 4,244,332	$ 4,498,992	$ 4,768,931	$ 5,055,067
58	$ 63,754	$ 67,579	$ 71,634	$ 75,932	$ 80,488	$ 85,317	$ 90,436	$ 95,862
59	$ 3,425,662	$ 3,631,202	$ 3,849,074	$ 4,080,018	$ 4,324,820	$ 4,584,309	$ 4,859,367	$ 5,150,929
60	$ 1,712,831	$ 1,815,601	$ 1,924,537	$ 2,040,009	$ 2,162,410	$ 2,292,154	$ 2,429,684	$ 2,575,465
61								

	U	V	W	X	Y	Z	AA	AB
34	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976
35	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
36	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976
37	$ (73,778,803)	$ (80,546,756)	$ (87,314,709)	$ (94,082,662)	$ (100,850,615)	$ (107,618,568)	$ (114,386,521)	$ (121,154,474)
38	$ (28,891,779)	$ (31,542,110)	$ (34,192,440)	$ (36,842,770)	$ (39,493,101)	$ (42,143,431)	$ (44,793,762)	$ (47,444,092)
39	$ 139,908,393	$ 130,490,110	$ 121,071,827	$ 111,653,543	$ 102,235,260	$ 92,816,977	$ 83,398,693	$ 73,980,410
40	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
41	$ 15,347,951	$ 14,314,765	$ 13,281,579	$ 12,248,394	$ 11,215,208	$ 10,182,022	$ 9,148,837	$ 8,115,651
42					$ (1,912,962)			
43	$ 36,896,485	$ 39,110,274	$ 41,456,890	$ 43,944,304	**$ 44,668,000**	$ 47,348,080	$ 50,188,965	$ 53,200,303
44	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
45	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
46	$ 36,896,485	$ 39,110,274	$ 41,456,890	$ 43,944,304	$ 44,668,000	$ 47,348,080	$ 50,188,965	$ 53,200,303
47	$ 6,767,953	$ 6,767,953	$ 6,767,953	$ 6,767,953	$ 6,767,953	$ 6,767,953	$ 6,767,953	$ 6,767,953
48	$ 314,348	$ 314,348	$ 314,348	$ 314,348	$ 314,348	$ 314,348	$ 314,348	$ 314,348
49	$ 43,978,786	$ 46,192,575	$ 48,539,191	$ 51,026,605	$ 51,750,301	$ 54,430,381	$ 57,271,266	$ 60,282,604
50								
51	$ 59,326,737	$ 60,507,340	$ 61,820,771	$ 63,274,999	$ 62,965,509	$ 64,612,404	$ 66,420,103	$ 68,398,255
52								
53								
54								
55								
56								
57	$ 5,358,371	$ 5,679,873	$ 6,020,666	$ 6,381,906	$ 6,764,820	$ 7,170,709	$ 7,600,952	$ 8,057,009
58	$ 101,614	$ 107,711	$ 114,174	$ 121,024	$ 128,285	$ 135,982	$ 144,141	$ 152,790
59	$ 5,459,985	$ 5,787,584	$ 6,134,839	$ 6,502,930	$ 6,893,105	$ 7,306,692	$ 7,745,093	$ 8,209,799
60	$ 2,729,993	$ 2,893,792	$ 3,067,420	$ 3,251,465	$ 3,446,553	$ 3,653,346	$ 3,872,547	$ 4,104,899
61								

	AC	AD	AE	AF	AG	AH	AI
34	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	
35	$ -	$ -	$ -	$ -	$ -	$ -	
36	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	$ 242,578,976	
37	$ (127,922,427)	$ (134,690,380)	$ (141,458,333)	$ (148,226,286)	$ (154,994,239)	$ (161,762,192)	
38	$ (50,094,422)	$ (52,744,753)	$ (55,395,083)	$ (58,045,413)	$ (60,695,744)	$ (63,346,074)	
39	$ 64,562,127	$ 55,143,844	$ 45,725,560	$ 36,307,277	$ 26,888,994	$ 17,470,710	
40	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	
41	$ 7,082,465	$ 6,049,280	$ 5,016,094	$ 3,982,908	$ 2,949,723	$ 1,916,537	$ 363,369,986
42							
43	$ 56,392,321	$ 59,775,860	$ 63,362,412	$ 67,164,156	$ 71,194,006	$ 75,465,646	
44	$ -	$ -	$ -	$ -	$ -	$ -	
45	$ -	$ -	$ -	$ -	$ -	$ -	
46	$ 56,392,321	$ 59,775,860	$ 63,362,412	$ 67,164,156	$ 71,194,006	$ 75,465,646	
47	$ 6,767,953	$ 6,767,953	$ 6,767,953	$ 6,767,953	$ 6,767,953	$ 6,767,953	
48	$ 314,348	$ 314,348	$ 314,348	$ 314,348	$ 314,348	$ 314,348	
49	$ 63,474,622	$ 66,858,161	$ 70,444,713	$ 74,246,458	$ 78,276,307	$ 82,547,947	
50							
51	$ 70,557,087	$ 72,907,441	$ 75,460,807	$ 78,229,366	$ 81,226,030	$ 84,464,484	
52							
53							
54							
55							
56							
57	$ 8,540,429	$ 9,052,855	$ 9,596,026	$ 10,171,788	$ 10,782,095	$ 11,429,021	
58	$ 161,957	$ 171,675	$ 181,975	$ 192,894	$ 204,467	$ 216,735	
59	$ 8,702,387	$ 9,224,530	$ 9,778,002	$ 10,364,682	$ 10,986,563	$ 11,645,756	
60	$ 4,351,193	$ 4,612,265	$ 4,889,001	$ 5,182,341	$ 5,493,281	$ 5,822,878	
61							

Cell: D16
Comment: John Walters:
Insert $9.00 for Limestone Backhaul calculation

	A	B	C	D	E	F
1	Revenue Requirments Summary					
2	2009 Amended Plan - Offsite Gypsum Disposal					
3						
4	Project 30		Ghent Landfill Phase I			2009
5						
6	Revenue Requirement					
7	Eligible Plant					$ 4,321,671
8	Less Gypsum Plant					$ -
9	Revised Eligible Plant					$ 4,321,671
10	Less Accumulated Depreciation					
11	Less Deferred Tax Balance					
12	Environmental Compliance Rate Base					$ 4,321,671
13	Rate of Return					11.1%
14						$ 480,509
15						
16	Operating Expenses					$ 84,800
17	less Gypsum to On-site Landfill					
18	Gypsum to Sterling (800,000 tons)					
19	Net Operating					$ 84,800
20	Annual Depreciation					
21	Annual Property Tax Expense					
22	Total OE					$ 84,800
23						
24	Total E(m) Gypsum to Sterling					$ 565,309
25	Total E(m) Gypsum to On-site Landfill					$ 565,309
26						
27	Difference					$ -

	G	H	I	J	K	L	M	N
1								
2								
3								
4	2010	2011	2012	2013	2014	2015	2016	2017
5								
6								
7	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 203,254,220	$ 203,969,979
8	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
9	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 191,133,918	$ 201,941,953	$ 202,578,976	$ 203,254,220	$ 203,969,979
10				$ (5,110,443)	$ (10,744,623)	$ (16,396,576)	$ (22,067,369)	$ (27,758,131)
11				$ (732,114)	$ (3,915,341)	$ (6,717,677)	$ (9,168,992)	$ (11,289,232)
12	$ 46,478,846	$ 105,485,803	$ 177,577,356	$ 185,291,361	$ 187,281,989	$ 179,464,723	$ 172,017,859	$ 164,922,616
13	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%	10.97%
14	$ 5,098,729	$ 11,571,793	$ 19,480,236	$ 20,326,462	$ 20,544,834	$ 19,687,280	$ 18,870,359	$ 18,092,011
15								
16	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244	$ 23,991,239
17				$ -	$ -	$ -	$ -	$ -
18				$ -	$ -	$ -	$ -	$ -
19	$ 121,349	$ 128,630	$ 136,348	$ 19,003,308	$ 20,143,507	$ 21,352,117	$ 22,633,244	$ 23,991,239
20				$ 5,110,443	$ 5,634,180	$ 5,651,953	$ 5,670,793	$ 5,690,762
21	$ 6,483	$ 69,718	$ 158,229	$ 266,366	$ 279,017	$ 286,798	$ 279,274	$ 271,751
22	$ 127,832	$ 198,348	$ 294,577	$ 24,380,117	$ 26,056,704	$ 27,290,868	$ 28,583,311	$ 29,953,752
23								
24	$ 5,226,561	$ 11,770,141	$ 19,774,813	$ 44,706,579	$ 46,601,539	$ 46,978,148	$ 47,453,670	$ 48,045,763
25	$ 5,226,225	$ 11,769,378	$ 19,773,528	$ 44,705,239	$ 46,600,208	$ 46,976,843	$ 47,458,553	$ 48,044,547
26								
27	$ 336	$ 763	$ 1,285	$ 1,340	$ 1,331	$ 1,305	$ (4,883)	$ 1,216

	O	P
1		
2		
3		
4	2018	
5		
6		
7	$ 203,969,979	
8	$ -	
9	$ 203,969,979	
10	$ (33,448,893)	
11	$ (13,098,586)	
12	$ 157,422,500	
13	10.97%	
14	$ 17,269,248	
15		
16	$ 25,430,713	
17	$ -	
18	$ -	
19	$ 25,430,713	
20	$ 5,690,762	
21	$ 264,317	
22	$ 31,385,792	
23		
24	$ 48,655,040	
25	$ 48,653,648	
26		
27	$ 1,392	$ 4,084

From: Straight, Scott(/O=LGE/OU=LOUISVILLE/CN=RECIPIENTS/CN=WEB/CN=SCOTTSTRAIGHT)
To: Schram, Chuck
CC:
BCC:
Subject: FW: Ghent Landfill Beneficial Reuse Opportunity
Sent: 12/13/2011 08:33:17 AM -0500 (EST)
Attachments:

Chuck, just noticed I had an incorrect email address for you in the email below.

Scott

From: Straight, Scott
Sent: Tuesday, December 13, 2011 8:32 AM
To: 'John Walters'
Cc: Pfeiffer, Caryl; Voyles, John; charles.schram@lge-ku.com; Joyce, Jeff; Heun, Jeff; Bowling, Ralph
Subject: RE: Ghent Landfill Beneficial Reuse Opportunity

Mr. Walters,

As we have discussed over the phone, this potential opportunity you have presented would not eliminate the need to construct the infrastructure required to process the by-products at Ghent, nor would it eliminate the construction of the landfill infrastructure. Instead, it potentially could have merit in a few years to defer the next phased expansion of the landfill.

The next phase of the landfill is years away; therefore, I'm transferring any future evaluation of this proposal to Mr. Jeff Joyce, Ghent's General Manager.

As the station General Manager, Mr. Joyce will take the lead on any consideration of changes to the future operation of that facility. If needed, Mr. Joyce will request involvement from my department or Caryl Pfeiffer's Corporate Fuels and By-Products department.

Sincerely,

Scott Straight
Director, Project Engineering
LG&E and KU Energy, LLC
(502) 627-2701
scott.straight@lge-ku.com

From: John Walters [mailto:johnwalters@sterlingventures.com]
Sent: Saturday, December 10, 2011 5:06 PM
To: Heun, Jeff
Cc: Straight, Scott; Pfeiffer, Caryl; Voyles, John; charles.schram@lge-ku.com; Joyce, Jeff
Subject: Ghent Landfill Beneficial Reuse Opportunity

Jeff

I understand from Scott Straight that you are evaluating the comparative PVRR cost projections for the beneficial reuse of Ghent's gypsum at Sterling Ventures' underground limestone mine. I am continuing to make minor adjustments to the comparative projections as we learn more information. Attached is the latest PVRR cost comparison.

In PSC Case No. 2009-00197, Charles Schram submitted, as part of his testimony, the PVRR analysis table that the Company would use to evaluate new beneficial reuse opportunities that could minimize disposal cost by delaying or eliminating construction of future phases. I have added three worksheets (KU PVRR Project 30, PVRR SV Option1 and PVRR SV Option2) to the attached excel file.

Those worksheets (also attached as pdfs) convert my original PVRR comparison worksheet to the format that Mr. Schram indicated would be used in this situation. I apologize for not providing the beneficial reuse savings projections in this format earlier.

As I have indicated in prior emails, the comparative PVRR projections are based on certain assumptions about the timing of the remaining $160 million construction costs of Phases 2 and 3 of the landfill. I have based my capital cost timing assumptions, and the O&M costs, on the retirement studies analysis in KU's recent Environmental Surcharge case. We would welcome the opportunity to meet with you about refining, correcting and updating the construction timing and cost assumptions in the attached.

I am also attaching, for your review, the Form 7059 for that we filed in July 2010, and a copy of the resulting Beneficial Reuse Special Waste Permit for Ghent's gypsum the we received in November, 2010.

Hopefully, our existing Beneficial Reuse Permit can provide a timely alternative that can delay or eliminate near and long term landfill construction costs and equipment purchases at Ghent, and result in significant savings for KU and its' customers.

Could you possibly confirm receipt of this email, and also let me know when you believe your preliminary analysis will be completed?

I look forward to hearing from you.

John Walters

--

John W. Walters, Jr.

Sterling Ventures, LLC

376 South Broadway

Lexington, KY 40508

Phone (859) 259-9600

Fax (859) 259-9601

johnwalters@sterlingventures.com

From: Straight, Scott(/O=LGE/OU=LOUISVILLE/CN=RECIPIENTS/CN=WEB/CN=SCOTTSTRAIGHT)
To: 'John Walters'
CC: Pfeiffer, Caryl; Voyles, John; 'charles.schram@lge-ku.com'; Joyce, Jeff; Heun, Jeff; Bowling, Ralph
BCC:
Subject: RE: Ghent Landfill Beneficial Reuse Opportunity
Sent: 12/13/2011 08:31:58 AM -0500 (EST)
Attachments:

Mr. Walters,

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Sincerely,

Scott Straight
Director, Project Engineering
LG&E and KU Energy, LLC
(502) 627-2701
scott.straight@lge-ku.com

From: John Walters [mailto:johnwalters@sterlingventures.com]
Sent: Saturday, December 10, 2011 5:06 PM
To: Heun, Jeff
Cc: Straight, Scott; Pfeiffer, Caryl; Voyles, John; charles.schram@lge-ku.com; Joyce, Jeff
Subject: Ghent Landfill Beneficial Reuse Opportunity

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Could you possibly confirm receipt of this email, and also let me know when you believe your preliminary analysis will be completed?

I look forward to hearing from you.

John Walters

--

John W. Walters, Jr.

Sterling Ventures, LLC

376 South Broadway

Lexington, KY 40508

Phone (859) 259-9600

Fax (859) 259-9601

johnwalters@sterlingventures.com

From: Straight, Scott(/O=LGE/OU=LOUISVILLE/CN=RECIPIENTS/CN=WEB/CN=SCOTTSTRAIGHT)
To: Pfeiffer, Caryl
CC:
BCC:
Subject: RE: Ghent Station Gypsum Disposal
Sent: 11/07/2011 11:27:45 AM -0500 (EST)
Attachments:

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thx

From: Pfeiffer, Caryl
Sent: Monday, November 07, 2011 10:59 AM
To: Straight, Scott; Joyce, Jeff; Tapp Sr., Kenny (Electric); Puckett, Paul
Cc: Dotson, Mike; Gilbert, Bill G.; Smith, Timothy
Subject: FW: Ghent Station Gypsum Disposal

FYI

From: John Walters [mailto:johnwalters@sterlingventures.com]
Sent: Monday, November 07, 2011 10:24 AM
To: Pfeiffer, Caryl
Subject: RE: Ghent Station Gypsum Disposal

Thanks for the update.

John

From: Pfeiffer, Caryl [mailto:Caryl.Pfeiffer@lge-ku.com]
Sent: Monday, November 07, 2011 10:22 AM
To: John Walters
Cc: Alex Boone
Subject: RE: Ghent Station Gypsum Disposal

John
I saw Scott on Friday and he said he had received your updated proposal and that his group was coordinating the analysis of the information with our Energy Planning, Forecasting and Analysis people and plant personnel. He said he would get back with you all once the internal analysis was completed.
Caryl

From: John Walters [mailto:johnwalters@sterlingventures.com]
Sent: Friday, November 04, 2011 11:15 AM
To: Pfeiffer, Caryl
Cc: Alex Boone
Subject: Ghent Station Gypsum Disposal

Caryl

Last Thursday, I sent Scott Straight and John Voyles an updated PVRR analysis comparing the alternative of using of Sterling's underground mine for Ghent's gypsum disposal to the current plan to place excess gypsum in the new landfill. The update was based on additional information from more recent PSC filings, and that update, along with the new assumptions, is attached.

Since I first provided our PVRR savings analysis on September 17, I have not been able to talk to anyone about the proposal. As I indicated in my cover letter in September, I necessarily had to make assumptions in calculating the PVRR saving - most importantly the projected cost and timing of phases 2 and 3 of the new landfill. Am I correct in assuming that a lack of any response to a potential $80,000,000 PVRR saving is the result of my analysis and/or assumption being grossly incorrect? If that is the case, could someone let me know what errors I made in my analysis? I was hoping to provide an alternative that

substantially delayed the need to build phase 2, and eliminated entirely the need for phase 3.

Also, I have not received any response to our updated proposal, as requested by Tim Smith, to use our mine for disposal of 1,500,000 tons of gypsum from Ghent's stacking pond. Is Ghent still looking at a short term plan to dispose of gypsum in the stacking pond? I understand that Tim Smith has been transferred to Trimble County. If there is still a need with respect to Ghent's gypsum stacking pond, who should we be talking to?

Any help would be appreciated.

John

John W. Walters, Jr.
Sterling Ventures, LLC
376 South Broadway
Lexington, KY 40508
Phone (859) 259-9600
Cell (859) 621-3990
Fax (859) 259-9601
johnwalters@sterlingventures.com