EXHIBIT A

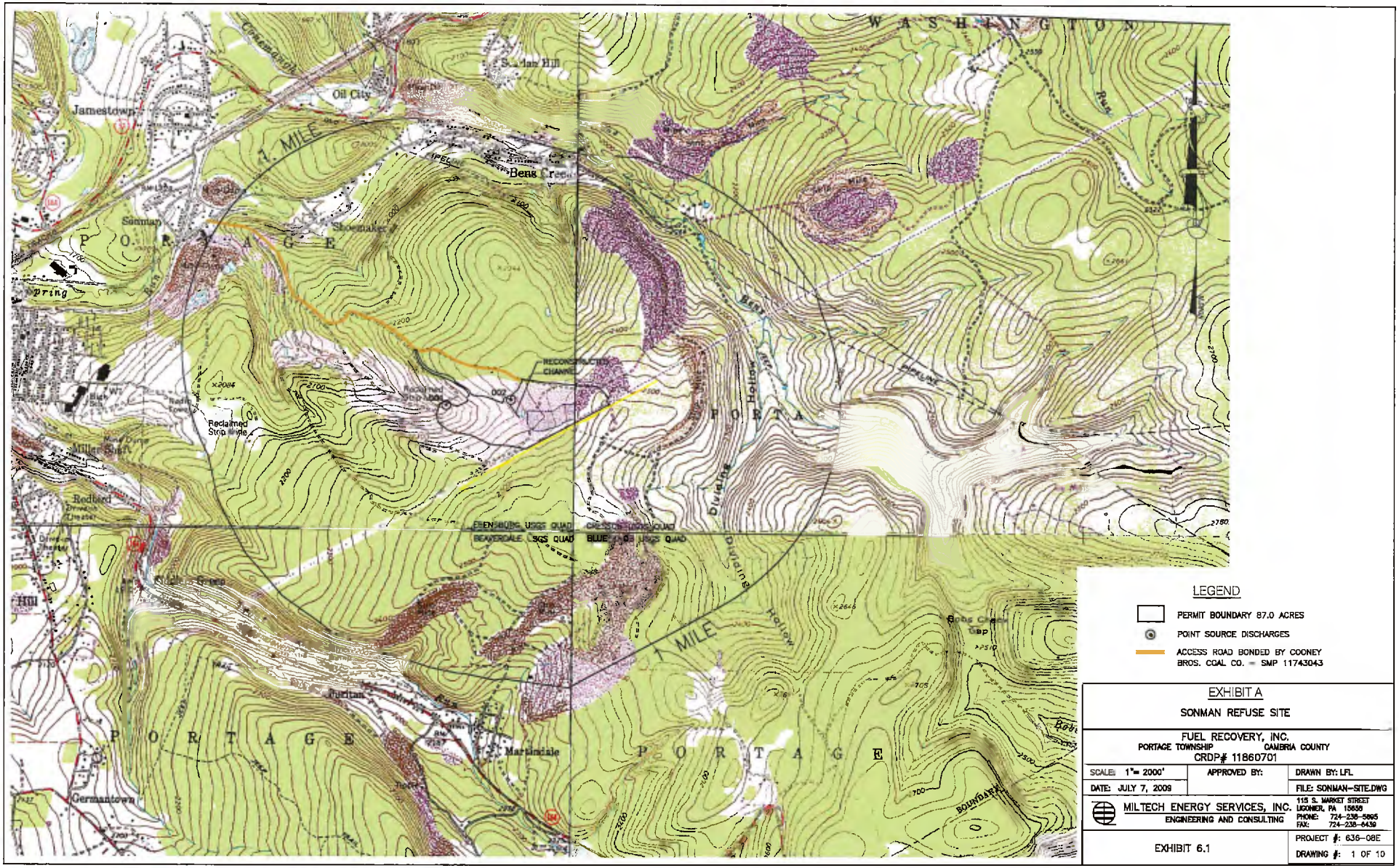

WASHINGTON
PORTAGE
Jamestown
Oil City
Bens Creek
Sonman
Shoemaker
Redbird
Miller Gulf
Reclaimed Strip Area
Martindale
Germantown
1 MILE
Dividing
Hollow
BOUNDARY
LEGEND
PERMIT BOUNDARY 87.0 ACRES
POINT SOURCE DISCHARGES
ACCESS ROAD BONDED BY COONEY BROS. COAL CO. - SMP 11743043
EXHIBIT A
SONMAN REFUSE SITE
FUEL RECOVERY, INC.
PORTAGE TOWNSHIP CAMBRIA COUNTY
CRDP# 11860701
SCALE: 1"= 2000'
APPROVED BY:
DRAWN BY: LFL
DATE: JULY 7, 2009
FILE: SONMAN-SITE.DWG
MILTECH ENERGY SERVICES, INC.
ENGINEERING AND CONSULTING
115 S. MARKET STREET LIGONIER, PA 15658
PHONE: 724-238-5695
FAX: 724-238-6439
EXHIBIT 6.1
PROJECT #: 636-08E
DRAWING #: 1 OF 10

EXHIBIT B

HYDROLOGIC MONITORING REPORT
HMR

Fuel Recovery, Inc.
Sonman Refuse
Portage Township
Cambria County

MINING ACTIVITY PERMIT 11860701
LAT: 40 ° 22 ' 56 "
LONG: 78 ° 38 ' 10 "
SURFACE EL.: 2295 MSL

NOTE: READ HMR INSTRUCTIONS BEFORE COMPLETING THIS FORM

PARAMETER	MONITORING POINT: UD DESCRIPTION: Underdrain on Phase 2													From 3/26/14 thru 2/27/17	
Date Sampled (MO/DA/YR)	3/26/2014	6/26/2014	9/18/2014	12/30/2014	3/30/2015	6/30/2015	9/15/2015	12/7/2015	3/7/2016	6/13/2016	9/28/2016	12/28/2016	2/27/2017	Median or Typical	Average
Stream Flow (cfs) ?????	0.4	0.42	0.07	FROZEN	0.18 gpm	0.22 gpm	0.25 gpm	0.25 gpm	3.75 gpm	0.5 gpm	0.25 gpm	2.25 gpm	3 gpm		
Stream Flow (gpm)	0.4	0.42	0.07		0.18	0.22	0.25	0.25	3.75	0.5	0.25	2.25	3	0.33	0.96
Iron (mg/l)	3530	3480	4950		3630	4390	5230	5160	874	4700	767	2270	3680	3655	3555
Suspended Solids (mg/l)	26.0	72.0	184.0		37.0	62.0	98.0	50.0	28.0	30.0	114	234	17	56	79
Manganese (mg/l)	72.8	61.9	99.8		67.1	79.4	114	122	17.1	114	144	48.6	70.4	76.1	84.3
Aluminum (mg/l)	13.9	21.0	8.0		20.5	32.2	18.7	27.5	31.0	14.4	21.0	116.0	119.0	21.0	36.9
Sulfates (mg/l)	8910	2010	12700		8920	13100	13600	12200	2280	9600	17600	7790	14000	10900	10226
Specific Conductance (umho)	9330	9430	11600		9100	9840	11800	11800	3290	7380	12700	7870	8050	9380	9349
Alkalinity (mg/l)	<20	<20	<20		<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
Acidity (mg/l)	5900	5990	7850		5842	6990	6190	8460	1320	3157	3886	3886	7768	5945	5603
Field pH (S.U.)	3.3	3.3	3.9		3.5	3.4	4.2	3.5	3.4	3.8	4.5	2.9	3.2	3.5	3.6
Laboratory pH (S.U.)	3.25	3.28	3.50		3.53	3.37	3.81	3.50	3.09	3.46	3.83	2.82	2.94	3.42	3.37
Ash Placement in Tons		471		11004	31293	43632	36855	41369	29371			11525			

I certify under penaltyof the law that I have personally examined and am familiar with the information submitted herein, and based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. Explanations are attached if discharge violations occurred during the monitoring month.

TYPED OR PRINTED NA Volume Generated 30240 Gallons per week SIGNATURE DATE

4043 Cubic feet per week
150 Cubic yards per week
164 Freeboard on pond from AMD Treat

20	40	5	4000 cubic ft.
25	30	6	4500 Pond dimensions

EXHIBIT C

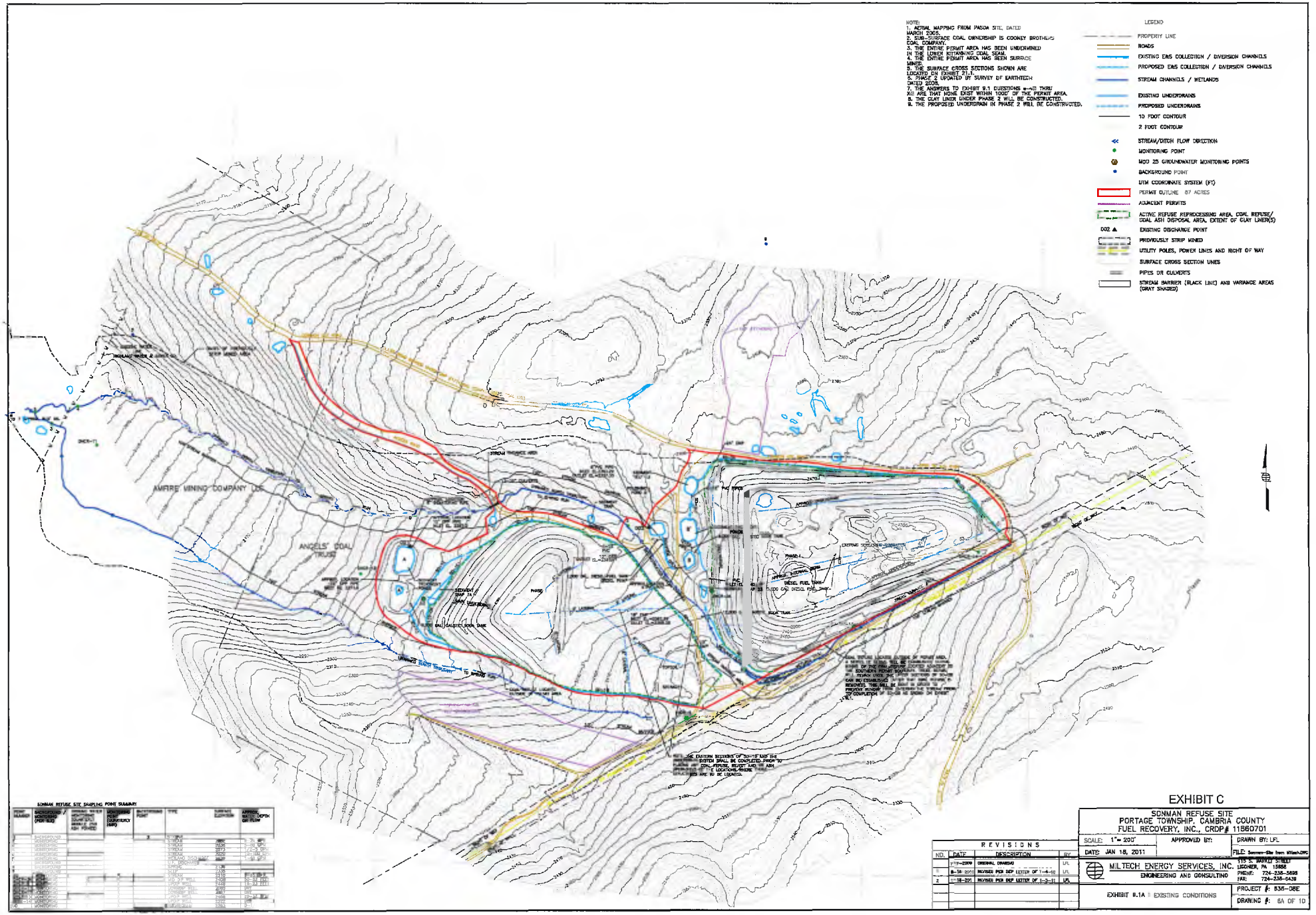

NOTE:
1. AERIAL MAPPING FROM PASDA SITE, DATED MARCH 2005.
2. SURFACE COAL OWNERSHIP IS COONEY BROTHERS COAL COMPANY.
3. THE ENTIRE PERMIT AREA HAS BEEN UNDERMINED IN THE LOWER KITTANNING COAL SEAM.
4. THE ENTIRE PERMIT AREA HAS BEEN SURFACE MINED.
5. THE SURFACE CROSS SECTIONS SHOWN ARE LOCATED ON EXHIBIT 21.1.
6. PHASE 2 UPDATED BY SURVEY OF EARTHTECH DATED 2005.
7. THE ANSWERS TO EXHIBIT 9.1 QUESTIONS a-AB THRU XG ARE THAT NONE EXIST WITHIN 1000' OF THE PERMIT AREA.
8. THE CLAY LINER UNDER PHASE 2 WILL BE CONSTRUCTED.
9. THE PROPOSED UNDERDRAIN IN PHASE 2 WILL BE CONSTRUCTED.
LEGEND
PROPERTY LINE
ROADS
EXISTING E&S COLLECTION / DIVERSION CHANNELS
PROPOSED E&S COLLECTION / DIVERSION CHANNELS
STREAM CHANNELS / WETLANDS
EXISTING UNDERDRAINS
PROPOSED UNDERDRAINS
10 FOOT CONTOUR
2 FOOT CONTOUR
STREAM/DITCH FLOW DIRECTION
MONITORING POINT
MW-25 GROUNDWATER MONITORING POINTS
BACKGROUND POINT
UTM COORDINATE SYSTEM (FT)
PERMIT OUTLINE 87 ACRES
ADJACENT PERMITS
ACTIVE REFUSE REPROCESSING AREA, COAL REFUSE/ COAL ASH DISPOSAL AREA, EXTENT OF CLAY LINER(S)
D02 EXISTING DISCHARGE POINT
PREVIOUSLY STRIP MINED
UTILITY POLES, POWER LINES AND RIGHT OF WAY
SURFACE CROSS SECTION LINES
PIPES OR CULVERTS
STREAM BARRIER (BLACK LINE) AND VARIANCE AREAS (GRAY SHADED)
AMFIRE MINING COMPANY LLC
ANGELS' COAL TRUST
SONMAN REFUSE SITE SAMPLING POINT SUMMARY
EXHIBIT C
SONMAN REFUSE SITE
PORTAGE TOWNSHIP, CAMBRIA COUNTY
FUEL RECOVERY, INC., CRDP# 11860701
SCALE: 1"= 200'
APPROVED BY:
DRAWN BY: LFL
DATE: JAN 18, 2011
REVISIONS
NO. DATE DESCRIPTION BY
7-7-2009 ORIGINAL DRAWING LFL
1 8-18-2010 REVISED PER DEP LETTER OF 7-6-10 LFL
2 1-18-201 REVISED PER DEP LETTER OF 1-3-11 LFL
MILTECH ENERGY SERVICES, INC.
ENGINEERING AND CONSULTING
115 S. MARKET STREET
LOCKPORT, PA 15956
PHONE: 724-235-5698
FAX: 724-238-5439
EXHIBIT 8.1A : EXISTING CONDITIONS
PROJECT #: 836-08E
DRAWING #: 8A OF 10

EXHIBIT D

5600-FM-MR0010 Rev. 5/98
"Supplement C"

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF MINING AND RECLAMATION

APPL. NO. (Department Use Only)

CONTRACTUAL CONSENT OF LANDOWNER (COAL)

(I) (We), the undersigned, being the owner(s) of 1318 acres of land located in Portage Township (Township, Borough, City), Cambria County, as described in the deed(s) recorded in the Recorder of Deeds Office Book(s) and page(s) DBV 1648 PG 1139 and shown by crosshatched lines on the map attached hereto which is signed in the original by the landowner upon which Fuel Recovery, Inc. (Name of Mining Operator) proposes to engage in surface mining activities for which application for permit will be made to the Department of Environmental Protection and of which application this consent will be made a part, **DO HEREBY ACKNOWLEDGE THAT THE MINING OPERATOR HAS THE RIGHT TO ENTER UPON AND USE THE LAND FOR THE PURPOSES OF CONDUCTING SURFACE MINING ACTIVITIES.** Furthermore, (I) (We), the undersigned, do hereby irrevocably grant to the mining operator and to the Commonwealth of Pennsylvania, the right to enter upon the aforesaid land before beginning the mining activity(ies), during the mining activity(ies) and for a period of five (5) years after the completion or abandonment of the mining activity(ies) for the purposes of inspecting, studying, backfilling, planting and reclaiming the land and abating pollution in accordance with the provisions of the Surface Mining Conservation and Reclamation Act, The Clean Streams Law, and the Coal Refuse Disposal Act, as amended, rules and regulations promulgated thereunder, and the provisions of permit(s) issued to the Mining Operator. (I) (We) do hereby grant in addition to the Commonwealth, for the aforesaid period of time, a right of entry across any adjoining or contiguous lands owned by (us) (me) in order to have access to the land described herein. It is specifically agreed and understood that this contractual consent gives the Commonwealth the right to enter, inspect, study, backfill, plant and reclaim the land and abate pollution therefrom as a matter within the police power but does not obligate the Commonwealth to do so, and does not constitute any ownership interest by the Commonwealth in the aforesaid land.

This Consent shall not be construed to impair any contractual agreement between the Mine Operator and the landowner.

(INSERT ADDITIONAL PROVISIONS OR CROSS OUT)

In witness whereof and intending to legally bind (myself) (ourselves), (my) (our) heirs, successors and assigns, (I) (we) have hereunto set (my) (our) hand(s) and seal this 21st day of December, 2001 (year)

Angels' Coal Trust
LANDOWNER (Print Name)

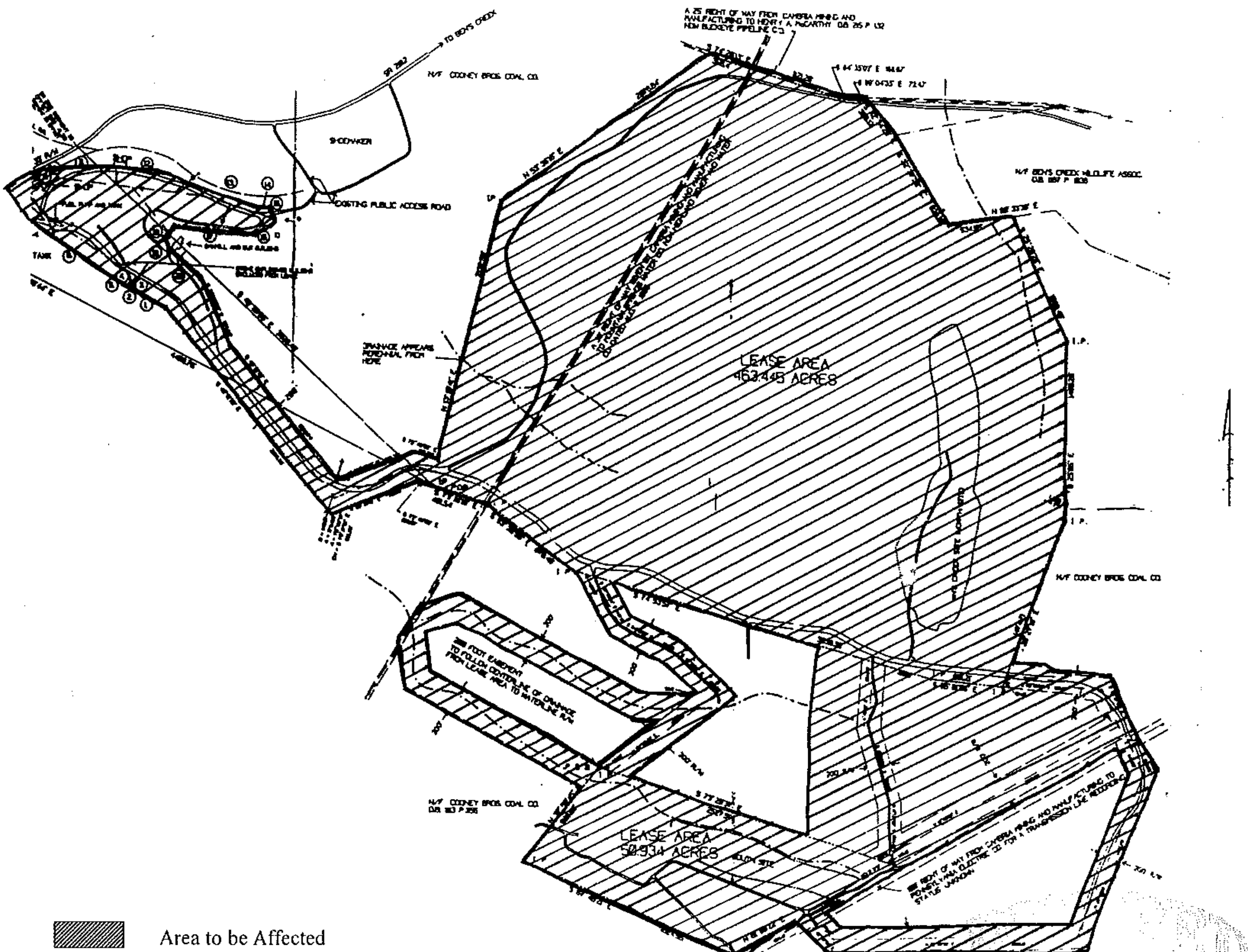
By: Trustee
(Signature) (Seal)

Gerald P. Neugebauer, Jr. - Trustee
(Print Name)

By: _____
(Signature)

_____
(Print Name)

VOL. 1782 PAGE 169



Area to be Affected

Angels' Coal Trust
Landowner

Gerald P. Neugebauer, Jr. - Trustee
Print Name

[signature] - Trustee
Signed by

ACKNOWLEDGEMENT OF INDIVIDUALS OR PARTNERS

LANDOWNER

STATE OF :
: ss
COUNTY OF :

On _____, before me, the undersigned Notary, personally appeared

_____
(Name (s))

known to me (or satisfactorily proven) to be the person whose name is subscribed to this instrument, and who acknowledged that _____
(he, she or they)

executed the same and desires it to be recorded.

IN WITNESS WHEREOF, I have hereunto set my hand and official seal.

(SEAL) _____ My Commission Expires: _____
Notary Public (Date)

LANDOWNER

STATE OF Pennsylvania :
: ss
COUNTY OF Cambria :

On December 21, 2001, before me, the undersigned Notary, personally appeared

Gerald P. Neugebauer, Jr., Trustee of Angels' Coal Trust
(Name (s))

known to me (or satisfactorily proven) to be the person whose name is subscribed to this instrument, and who acknowledged that he
(he, she or they)

executed the same and desires it to be recorded.

IN WITNESS WHEREOF, I have hereunto set my hand and official seal.

NOTARIAL SEAL
CATHERINE M. KENT, NOTARY PUBLIC
EBENSBURG BORO., CAMBRIA COUNTY
MY COMMISSION EXPIRES SEPT. 5, 2005

(SEAL) Catherine M. Kent My Commission Expires: _____
Notary Public (Date)

ACKNOWLEDGEMENT OF CORPORATIONS

LANDOWNER

STATE OF :
: ss
COUNTY OF :

On _____, before me, the undersigned Notary, personally appeared

_____

who acknowledged (herself) (himself) to be the _____ of
(Title of Person)

_____, a
(Name of Corporation)

corporation, and that (she) (he), as such officer, being authorized to do so, executed the foregoing instrument on behalf of the said corporation and desires that this instrument be recorded.

IN WITNESS WHEREOF, I have hereunder set my hand and official seal.

(SEAL) _____ My Commission Expires: _____
Notary Public (Date)

ENTERED FOR THE RECORD
Recorder's Office, Cambria Co., PA
ANDREA FEDORE SIMS, RECORDER
JAN 4 2002
12:50
Fees: $ _____
Cash Check Tech

336 Bloom Filed St. Tnosn Pa 15904

257

This instrument has been recorded in _____
County, Pennsylvania, this _____ day of _____,
(year) at Book _____, Page(s) _____

I Hereby certify that this document is recorded in the Recorder of Deeds Office of CAMBRIA COUNTY, PENNSYLVANIA

(Signed) (Print Name)
Recorder of Deeds

RECORDER'S OFFICE ★ CAMBRIA COUNTY, PA ★

EXHIBIT E

TREATMENT BOND/TRUST CALCULATOR

Prepared For: Fuel Recovery
Treatment System(s) ID: Sonman Refuse

Date (mm/dd/yy): June 30, 2017

Inflation Rate:		3.1%
Yrs to Treat start:		0
Annual Treatment Cost:		$21,507.00
Trust Fees:		1.50%
Bond (not needed for rec):		$0.00
Investment Ratios:		
	stock:	80%
	bond:	20%
Effective Rate of Return:		8.43%
Volatility Index:		1.16
Rec Bond Rate of Return:		6.00%
Remaining Time on Permit:	0	years

Options	O&M only	Total with Recap	Total with Recap & Insurance	
option #1				
conventional bond:	$763,127.69	$771,948.41	$803,856.36	bond in year
bond adjustment:	$763,127.69	$771,948.41	$803,856.36	1
option #2				
fully funded trust:	$493,017.91	$496,933.91	$508,325.43	trust in year 1

PV of Recap (todays $$) @ 8.43% Eff RoR & 3.1% Inf: $3,916.00 for trust in year 1

PV of Recap (todays $$) @ 6.00% Eff RoR & 3.1% Inf: $7,572.00 for bond in year 1 $8,820.72 for bond in year 1

Liability Insurance Factor @	$1.00	per year, per $1000 in the total PV of the Trust:	$496.93	per year	PV Insurance: $11,391.52
Liability Insurance Factor @	$1.00	per year, per $1000 in total Bond:	$771.95	per year	PV Insurance: $27,390.86

Fields in RED can be updated
Fields in BLUE are fixed or calculated
Fields in GREEN are partial amounts
Highlighted Fields in GREEN are final amounts

Company Name Fuel Recovery, Inc.
Project Cooney
Site Name Sonman

Printed on 05/11/2017

AMD TREAT

AMD TREAT MAIN COST FORM

Costs

Passive Treatment	A	S	
Vertical Flow Pond			$0
Anoxic Limestone Drain			$0
Anaerobic Wetlands			$0
Aerobic Wetlands			$0
Manganese Removal Bed			$0
Oxic Limestone Channel			$0
Limestone Bed			$0
BIO Reactor			$0
Passive Subtotal:			**$0**
Active Treatment			
Caustic Soda	2	0	$4,796
Hydrated Lime			$0
Pebble Quick Lime			$0
Ammonia			$0
Oxidants			$0
Soda Ash			$0
Active Subtotal:			**$0**
Ancillary Cost			
Ponds	2	0	$10,000
Roads			$0
Land Access			$0
Ditching	2	0	$1,146
Engineering Cost	1	0	$3,188
Ancillary Subtotal:			**$14,334**
Other Cost (Capital Cost)			$0
Total Capital Cost:			**$19,130**
Annual Costs			
Sampling	1	0	$1,345
Labor	1	0	$7,280
Maintenance	1	0	$478
Pumping			$0
Chemical Cost	1	0	$8,254
Oxidant Chem Cost			$0
Sludge Removal	1	0	$4,150
Other Cost (Annual Cost)			$0
Land Access (Annual Cost)			$0
Total Annual Cost:			**$21,507**
Other Cost			

Water Quality

Design Flow	1.95	gpm
Typical Flow	0.98	gpm
Total Iron	3555.00	mg/L
Ferrous Iron	0.00	mg/L
Aluminum	36.90	mg/L
Manganese	84.30	mg/L
pH	3.37	su
Alkalinity	0.00	mg/L
TIC	0.00	mg/L

○ Calculate Net Acidity
◉ Enter Hot Acidity manually

Acidity	5603.00	mg/L

Sulfate	10226.0	mg/L
Chloride	0.00	mg/L
Calcium	0.00	mg/L
Magnesium	0.00	mg/L
Sodium	0.00	mg/L
Water Temperature	20.00	C
Specific Conductivity	9349.00	uS/cm
Total Dissolved Solids	0.00	mg/L
Dissolved Oxygen	0.01	mg/L
Typical Acid Loading	12.0	tons/yr

Total Annual Cost: per 1000 Gal of H2O Treated **$41.725**

Company Name Fuel Recovery, Inc.

Project Cooney

Site Name Sonman

COMMENTS:

Company Name Fuel Recovery, Inc.

Project Cooney

Site Name Sonman

Printed on 05/11/2017

AMD TREAT

CAUSTIC SODA

Opening Screen Water Parameters

Caustic Soda Name: Sonman Refuse Site Phase 1

Influent Water Parameters that Affect Caustic Soda

Calculated Acidity: 9927.82 mg/L

Alkalinity: 0.00 mg/L

- Calculate Net Acidity (Acid-Alkalinity)
- Enter Net Acidity manually

Net Acidity (Hot Acidity): 5603.00 mg/L

Design Flow: 1.95 gpm

Typical Flow: 0.98 gpm

Total Iron: 3555.00 mg/L

Aluminum: 36.90 mg/L

Manganese: 84.30 mg/L

1. Gallons of Caustic per Year	9,710.69	gal/yr
2. Gallons of Caustic per Month	809.22	gal/mo
3. Gallons of Caustic per Day	26.60	gal/day
☐ 4. Titration?		
5. Caustic Titration Volume		gal caustic/gal water treated
6. Purity of Caustic Solution	99.00	purity of 20% caustic solution
7. Mixing Efficiency of Caustic Solution	100.00	%
8. Tank Cost	2000	$
9. Tank Volume	2500	gal
10. Delivery Frequency	12	times/yr
11. Valve Unit Cost	50.00	$
12. Number of Valves	2	nbr
13. Feeder Line Length	50	ft
14. Feeder Line Unit Cost	0.35	$/ft
15. Installation of System Unit Cost	35.00	$/hr
16. Installation Hours	8	hours

☐ 17. Automatic System?

18. PID pH Proportional Control		$
19. pH Probe		$
20. Chemical Metering Pump		$
☐ 21. Water Wheel Dispenser		
22. Dispenser Cost		$

Caustic Sub-Totals

23. Number of Tanks Required	1	nbr
24. Tank Cost	2,000	$
25. Automatic System or Wheel Dispenser Cost	0	$
26. Cost of Valves	100	$
27. Feeder Line Cost	17	$
28. Labor Cost	280	$
29. Total Capital Cost	2,398	$

Record Number 1 of 2

Printed on 05/11/2017

Company Name Fuel Recovery, Inc.
Project Cooney
Site Name Sonman

AMD TREAT
CAUSTIC SODA

AMDTREAT

☑ Opening Screen Water Parameters

Caustic Soda Name: Sonman Refuse Site Phase 2

Influent Water Parameters that Affect Caustic Soda

Calculated Acidity: 9927.82 mg/L
Alkalinity: 0.00 mg/L

○ Calculate Net Acidity (Acid-Alkalinity)
○ Enter Net Acidity manually
Net Acidity (Hot Acidity): 5603.00 mg/L

Design Flow: 1.95 gpm
Typical Flow: 0.98 gpm
Total Iron: 3555.00 mg/L
Aluminum: 36.90 mg/L
Manganese: 84.30 mg/L

1. Gallons of Caustic per Year	9,710.69	gal/yr
2. Gallons of Caustic per Month	809.22	gal/mo
3. Gallons of Caustic per Day	26.60	gal/day
☐ 4. Titration?		
5. Caustic Titration Volume		gal caustic/gal water treated
6. Purity of Caustic Solution		purity of 20% caustic solution
7. Mixing Efficiency of Caustic Solution	100.00	%
8. Tank Cost	2000	$
9. Tank Volume	2500	gal
10. Delivery Frequency	12	times/yr
11. Valve Unit Cost	50.00	$
12. Number of Valves	2	nbr
13. Feeder Line Length	50	ft
14. Feeder Line Unit Cost	0.35	$/ft
15. Installation of System Unit Cost	35.00	$/hr
16. Installation Hours	8	hours

☐ 17. Automatic System?		
18. PID pH Proportional Control		$
19. pH Probe		$
20. Chemical Metering Pump		$
☐ 21. Water Wheel Dispenser		
22. Dispenser Cost		$

Caustic Sub-Totals

23. Number of Tanks Required	1	nbr
24. Tank Cost	2,000	$
25. Automatic System or Wheel Dispenser Cost	0	$
26. Cost of Valves	100	$
27. Feeder Line Cost	17	$
28. Labor Cost	280	$
29. Total Capital Cost	2,398	$

Record Number 2 of 2

Company Name Fuel Recovery, Inc.
Project Cooney
Site Name Sonman

Printed on 05/11/2017

AMD TREAT

PONDS

AMDTREAT

Pond Name: Sonman Pond 1

☑ **Opening Screen Water Parameters**

Influent Water Parameters that Affect Ponds

Calculated Acidity: 9927.82 mg/L
Alkalinity: 0.00 mg/L

○ Calculate Net Acidity (Acid-Alkalinity)
◉ Enter Net Acidity manually
Net Acidity (Hot Acidity): 6803.00 mg/L

Design Flow: 1.95 gpm
Typical Flow: 0.98 gpm
Total Iron: 3555.00 mg/L
Aluminum: 36.90 mg/L
Manganese: 84.30 mg/L

Record Number 1 of 2

Pond Design Based On:

○ Retention Time
1. Desired Retention Time: hours
☐ 2. Include Sludge Removal?
3. Sludge Removal Frequency: times/year
☐ 4. Titration?
5. Sludge Rate: gal sludge/ gal H2O
6. Percent Solids: %
7. Sludge Density: lbs./gal

◉ Pond Size
8. Pond Length at Top of Freeboard: 40.000 ft
9. Pond Width at Top of Freeboard: 40.000 ft

	Run		Rise	
10. Slope Ratio of Pond Sides	2.0	:	1	
11. Freeboard Depth	2.0			ft
12. Water Depth	2.5			ft
13. Excavation Unit Cost	5.50			$/yd3
14. Total Length of Effluent / Influent Pipe	0.00			ft
15. Unit Cost of Pipe	10.00			$/ft

Liner Cost

◉ No Liner
○ Clay Liner
16. Clay Liner Unit Cost: $/yd3
17. Thickness of Clay Liner: ft
○ Synthetic Liner
18. Synthetic Liner Unit Cost: $/yd2

☐ 19. Clearing and Grubbing?

◉ 20. Land Multiplier: ratio
◉ 21. Clear/Grub Acres: acres
22. Clear and Grub Unit Cost: $/acre

23. Revegetation Cost: 1500.00 $/acre
24. Cost of Baffles: 0 $

Calculated Pond Dimensions per Pond

25. Length at Top of Freeboard	40	ft
26. Width at Top of Freeboard	40	ft
27. Freeboard Volume	164	yd3
28. Water Volume	68	yd3
29. Estimated Annual Sludge	0	yd3/yr
30. Volume of Sludge per Removal	0	yd3/ removal
31. Excavation Volume	0.04	acre ft
32. Excavation Volume	68	yd3
33. Clear and Grub Area	0.05	acres
34. Liner Area	0	yd2
35. Calculated Retention Time	117	hours

Ponds Sub-Totals per Pond

36. Excavation Cost	375	$
37. Pipe Cost	0	$
38. Liner Cost	0	$
39. Clearing and Grubbing Cost	0	$
40. Revegetation Cost	27	$
41. Baffle Cost	0	$
☑ 42. Estimated Cost	403	$

☑ 43. Accept Minimum Pond Cost?

The Recommended Minimum Construction Cost of Building a Pond is $ 5,000

44. Recommended Minimum Cost: 5,000 $

45. Total Cost: 5,000 $

Company Name Fuel Recovery, Inc.

Project Cooney

Site Name Sonman

Printed on 05/11/2017

AMD TREAT

PONDS

AMDTREAT

Pond Name: Sonman Pond 2

☐ Opening Screen Water Parameters

Influent Water Parameters that Affect Ponds

Calculated Acidity: 9927.82 mg/L

Alkalinity: 0.00 mg/L

○ Calculate Net Acidity (Acid-Alkalinity)

◉ Enter Net Acidity manually

Net Acidity (Hot Acidity): 5603.00 mg/L

Design Flow: 1.50 gpm

Typical Flow: 0.75 gpm

Total Iron: 3680.00 mg/L

Aluminum: 27.50 mg/L

Manganese: 79.40 mg/L

Record Number 2 of 2

Pond Design Based On:

○ Retention Time

1. Desired Retention Time: hours

☐ 2. Include Sludge Removal?

3. Sludge Removal Frequency: times/year

☐ 4. Titration?

5. Sludge Rate: gal sludge/ gal H2O

6. Percent Solids: %

7. Sludge Density: lbs./gal

◉ Pond Size

8. Pond Length at Top of Freeboard: 40.000 ft

9. Pond Width at Top of Freeboard: 40.000 ft

	Run		Rise	
10. Slope Ratio of Pond Sides	2.0	:	1	
11. Freeboard Depth	2.0			ft
12. Water Depth	2.5			ft
13. Excavation Unit Cost	5.50			$/yd3
14. Total Length of Effluent / Influent Pipe	0.00			ft
15. Unit Cost of Pipe	10.00			$/ft

Liner Cost

○ No Liner

◉ Clay Liner

16. Clay Liner Unit Cost: 5.00 $/yd3

17. Thickness of Clay Liner: 1.0 ft

○ Synthetic Liner

18. Synthetic Liner Unit Cost: $/yd2

☐ 19. Clearing and Grubbing?

◉ 20. Land Multiplier: ratio

◉ 21. Clear/Grub Acres: acres

22. Clear and Grub Unit Cost: $/acre

23. Revegetation Cost: 1500.00 $/acre

24. Cost of Baffles: 0 $

Calculated Pond Dimensions per Pond

25. Length at Top of Freeboard	40	ft
26. Width at Top of Freeboard	40	ft
27. Freeboard Volume	164	yd3
28. Water Volume	68	yd3
29. Estimated Annual Sludge	24	yd3/yr
30. Volume of Sludge per Removal	24	yd3/ removal
31. Excavation Volume	0.04	acre ft
32. Excavation Volume	68	yd3
33. Clear and Grub Area	0.05	acres
34. Liner Area	216	yd2
35. Calculated Retention Time	153	hours

Ponds Sub-Totals per Pond

36. Excavation Cost	629	$
37. Pipe Cost	0	$
38. Liner Cost	231	$
39. Clearing and Grubbing Cost	0	$
40. Revegetation Cost	27	$
41. Baffle Cost	0	$
☑ 42. Estimated Cost	888	$

☑ 43. Accept Minimum Pond Cost?

The Recommended Minimum Construction Cost of Building a Pond is $ 5,000

44. Recommended Minimum Cost: 5,000 $

45. Total Cost: 5,000 $

Company Name Fuel Recovery, Inc.

Project Cooney

Site Name Sonman

Printed on 05/11/2017

AMD TREAT

DITCHING

AMDTREAT

Ditching Name: Sonman Pond 1

1. Ditch Length Rock	0	ft
2. Ditch Length Grass	800	ft
3. Bottom Width of Ditch	0.2	ft
4. Ditch Depth	1.00	ft
5. Geo Textile Unit Cost	3.00	$/yd2
6. Length of Geo Textile	0	ft
7. Slope Ratio of Ditch Sides (Run : Rise)	2.00 : 1.00	
☐ 8. Surveying?		
9. Survey Rate		acres/day
10. Survey Unit Cost		$/day
☑ 11. Clearing and Grubbing?		
12. Clear and Grub Cost	1300.00	$/acre

Record Number 1 of 2

13. Ditch Depth of Rock	0.00	ft
14. Cost of Ditch Surface Rock	20.00	$/yd3
15. Cost to Place Rock	12.00	$/yd3
16. Excavation Unit Cost	5.50	$/yd3
17. Length of Silt Fence	0.00	ft
18. Unit Cost of Silt Fence	1.15	$/ft
19. Revegetation Unit Cost	1500.00	$/acre

Ditching Sub-Totals

20. Excavation Cost	359	$
21. Survey Cost	0	$
22. Clear and Grub Cost	120	$
23. Aggregate Cost	0	$
24. Filter Fabric Cost	0	$
25. Silt Fence Cost	0	$
26. Revegetation Cost	154	$
27. Total Cost	633	$

Company Name Fuel Recovery, Inc.

Project Cooney

Site Name Sonman

Printed on 05/11/2017

AMD TREAT

DITCHING

AMDTREAT

Ditching Name: Sonman Pond 2

1. Ditch Length Rock	0	ft
2. Ditch Length Grass	800	ft
3. Bottom Width of Ditch	0.2	ft
4. Ditch Depth	1.00	ft
5. Geo Textile Unit Cost	3.00	$/yd2
6. Length of Geo Textile	0	ft
7. Slope Ratio of Ditch Sides (Run : Rise)	2.00 : 1.00	
☐ 8. Surveying?		
9. Survey Rate		acres/day
10. Survey Unit Cost		$/day
☐ 11. Clearing and Grubbing?		
12. Clear and Grub Cost		$/acre

Record Number 2 of 2

13. Ditch Depth of Rock	0.00	ft
14. Cost of Ditch Surface Rock	20.00	$/yd3
15. Cost to Place Rock	12.00	$/yd3
16. Excavation Unit Cost	5.50	$/yd3
17. Length of Silt Fence	0.00	ft
18. Unit Cost of Silt Fence	1.15	$/ft
19. Revegetation Unit Cost	1500.00	$/acre

Ditching Sub-Totals

20. Excavation Cost	359	$
21. Survey Cost	0	$
22. Clear and Grub Cost	0	$
23. Aggregate Cost	0	$
24. Filter Fabric Cost	0	$
25. Silt Fence Cost	0	$
26. Revegetation Cost	154	$
27. Total Cost	513	$

Company Name Fuel Recovery, Inc.

Project Cooney

Site Name Sonman

Printed on 05/11/2017

AMD TREAT

ENGINEERING COST

1. Capital Cost *	15,942	$
(•) 2. Per Cent of Capital Cost	20.00	%
( ) 3. Actual Engineering Cost		$
4. Total Engineering Cost	3,188	$

*** Total Capital Cost minus Engineering and Land Access Capital Cost**

Company Name Fuel Recovery, Inc.

Project Cooney

Site Name Sonman

Printed on 05/11/2017

AMD TREAT

SAMPLING

Sampling Name: Sonman Refuse Site Ponds 1 and 2

Estimate Sampling Cost

1. Unit Labor Cost	35.00	$/hr
2. Collection Time per Sample	0.33	hours/sample
3. Travel Time	1.00	hr
4. Sample Frequency	1.00	samples/mo
5. Lab Cost Per Sample	27.00	$/sample
6. Number of Sample Points	2	points

Enter Established Annual Sampling Cost

7. Actual Annual Sampling Cost		$

Sampling Sub-Totals

8. Yearly Sample Analysis Cost	648	$
9. Yearly Travel Cost	420	$
10. Yearly Collection Cost	277	$

11. Sampling Cost	1,345	$

Record Number 1 of 1

Company Name Fuel Recovery, Inc.

Project Cooney

Site Name Sonman

Printed on 05/11/2017

AMD TREAT

LABOR

Labor Name: Sonman Phases 1 and 2

Estimate Labor Cost

1. Site Visits per Week	2.00	
2. Site Labor Time per Visit	1.50	hours
3. Travel Time per Visit	0.50	hours
4. Unit Labor Cost	35.00	$/hour

Enter Established Annual Labor Cost

5. Actual Annual Labor Cost		$

6. Total Cost	7,280	$

Record Number 1 of 1

Printed on 05/11/2017

Company Name Fuel Recovery, Inc.

Project Cooney

Site Name Sonman

AMD TREAT

MAINTANENCE

Estimate Maintenance Cost

1. Percent of Active Cost	3.00	%
2. Percent of Passive Cost	3.50	%
3. Percent of Ancillary Cost *	3.00	%
4. Percent of Other Capital Cost	3.50	%

Enter Established Annual Maintenance Cost

5. Annual Maintenance Cost		$

Maintenance Sub-Totals

6 Total Maintenance Active Cost	144	$
7. Total Maintenance Passive Cost	0	$
8. Total Maintenance Ancillary Cost	334	$
9. Total Maintenance Other Capital Cost	0	$
10. Total Maintenance Cost	478	$

* Ancillary Cost does int include Cost for Land Access and Engineering Cost

Company Name Fuel Recovery, Inc.

Project Cooney

Site Name Sonman

Printed on 05/11/2017

AMD TREAT
CHEMICAL COST

AMDTREAT

Chemical Cost Name: Caustic Soda for Sonman Ponds 1 and 2

☑ **Opening Screen Water Parameters**

Influent Water Parameters that Affect Chemical Cost

Calculated Acidity: 9927.82 mg/L

Alkalinity: 0.00 mg/L

○ Calculate Net Acidity (Acid-Alkalinity)

◉ Enter Net Acidity manually

Net Acidity (Hot Acidity): 5603.00 mg/L

Design Flow: 1.95 gpm

Typical Flow: 0.98 gpm

Total Iron: 3555.00 mg/L

Aluminum: 36.90 mg/L

Manganese: 84.30 mg/L

Record Number

1 of 1

○ A. Hydrated Lime ?

☐ 1 Titration?

2. Hydrated Lime Titration Amount — lbs of hydrated lime / gal of H2O

3. Hydrated Lime Purity — %

4. Mixing Efficiency of Hydrated Lime — %

5. Hydrated Lime Unit Cost — $/lb

○ B. Pebble Quick Lime ?

☐ 6. Titration?

7. Pebble Lime Titration Amount — lbs of Pebble Lime / gal of H2O

8. Pebble Lime Purity — %

9. Mixing Efficiency of Pebble Lime — %

◉ Delivered in Bags

10. Pebble Lime Bag Unit Cost — $/lb

◉ Bulk Delivery

11. Pebble Lime Bulk Unit Cost — $/lb

◉ C. Caustic Soda ?

☐ 12. Titration?

13. Caustic Titration Amount — gal ofcaustic / gal H2O

14. Caustic Purity — purity of 20% caustic solution

15. Mixing Efficiency of Caustic — %

○ Non-Bulk Delivery

16. Caustic Non-Bulk Unit Cost — $/gal

◉ Bulk Delivery

17. Caustic Bulk Unit Cost: 0.85 $/gal

☐ 18. Flocculents?

19. Flocculent Consumption — gal/hr

20. Flocculent UnitCost — $/gal

○ E. Anhydrous Ammonia ?

☐ 21. Titration?

22. AmmoniaTitration Amount — lbs of ammonia / gal H2O

23. Ammonia Purity — %

24. Mixing Efficiency of Ammonia — %

◉ Non-Bulk Delivery

25. Ammonia Non-Bulk Unit Cost — $/lb

◉ Bulk Delivery

26. Ammonia Bulk Unit Cost — $/lb

○ F. Soda Ash ?

☐ 27. Titration?

28 Soda Ash Titration Amount — lbs of soda ash / gal of H2O

29. Soda Ash Purity — %

30. Mixing Efficiency of Soda Ash — %

31 Soda Ash Unit Cost — $/lb

○ G. Known Chemical Cost ?

32. Known Annual Chemical Cost — $

Chemical Cost Sub-Totals / **Annual Amount of Chemicals Consumed**

33. Total Hydrated Lime Cost	0	$	0	lbs
34. Total Pebble Lime Cost	0	$	0	lbs
35. Total Caustic Soda Cost	8,254	$	9,710	gals
36. Total Anhydrous Ammonia Cost	0	$	0	lbs
37. Total Soda Ash Cost	17,156	$	42,888	lbs
38. Total Known Chemical Cost	0	$		
39. Total Flocculent Cost	0	$	0	gals

40. Selected Chemical: **CAUSTIC SODA**

Annual Chemical Cost: 8,254 $

Company Name Fuel Recovery, Inc.

Project Cooney

Site Name Sonman

Printed on 05/11/2017

AMD TREAT

SLUDGE REMOVAL

AMDTREAT

☐ Opening Screen Water Parameters

Sludge Removal Name: Sonman Refuse Site Phase 1 and 2

Influent Water Parameters that Affect Sludge Removal

Calculated Acidity: 9927.82 mg/L

Alkalinity: 0.00 mg/L

- ○ Calculate Net Acidity (Acid-Alkalinity)
- ◉ Enter Net Acidity manually

Net Acidity (Hot Acidity): 5603.00 mg/L

Design Flow: 1.95 gpm

Typical Flow: 0.98 gpm

Total Iron: 3680 mg/L

Aluminum: 119 mg/L

Manganese: 70 mg/L

1. Select One — Selection for Method of Removing Sludge

- ○ Sludge Removal by $ per Gallon
  - 2. Sludge Removal Unit Cost: $/gal
- ◉ Sludge Removal by Vacuum Truck
  - 3. Vacuum Truck Unit Cost: 200.00 $/hr
  - 4. Mobilization Cost: 150.00 $
  - 5. Hours to be Used: 20.00 hr
- ○ Sludge Removal by Mechanical Excavation
  - 6. Mechanical Excavation Unit Rate: $/hr
  - 7. Mobilization Cost: $
  - 8. Hours to be Used: hr
- ○ Sludge Removal by Lagoon Cleaner
  - 9. Lagoon Cleaning Unit Rate: $/hr
  - 10. Mobilization Cost: $
  - 11. Hours to be Used: hr
- ○ Actual Sludge Removal Cost
  - 12. Actual Sludge Removal Cost: $

13. Off Site Disposal Cost: 0.00 $

Record Number 1 of 1

Concentrations from Main Water Quality Screen

14. Iron Concentration: 3555.00 mg/L

15. Manganese Concentration: 84.30 mg/L

16. Aluminum Concentration: 36.90 mg/L

17. Total Miscellaneous Concentration: mg/L

18. Percent Solids: %

19. Sludge Density: lbs/gal

☐ 20. Titration?

21. Gal. of Sludge per Gal of Water Treated: gal

22. Estimated Sludge Volume: 201 yd3/yr

Cost for Sludge Removal Types

23. Removal by $ per Gallon: 2,442 $

24. Removal by Vacuum Truck: 4,150 $

25. Removal by Mechanical Excavation: 5,150 $

26. Removal by Lagoon Cleaner: 0 $

27. Actual Sludge Removal Cost: 0 $

Sludge Removal Sub-Totals

28. Currently Selected Removal Cost Plus Off Site Disposal Cost: 4,150 $

Cooney

Background Colors Window Help

EXHIBIT F

rrent ReCapitalization 1 of 1

Recapitzalition Name: Sonman Refuse Site Phase 1 and 2

1. Calculation Period: 75 yrs

2. Inflation Rate: 3.10 %

3. Net Rate of Return: 6.00 %

RECAPITALIZATION WORKSHEET

| Sonman Refuse Sit

Add

Delete

Suspend

	A. Item Description	B. Cost per Item	C. # of Items	D. Total Cost	E. Life Cycle	F. # of Periods	G. Total PV
1.	Caustic Soda Tanks	2,000	2	4,000	15	5	
2.	Piping	17	2	34	5	15	
3.	Valves	50	2	100	5	15	
4.		0	0	0	0	0	
5.		0	0	0	0	0	
6.		0	0	0	0	0	
7.		0	0	0	0	0	
8.		0	0	0	0	0	
9.		0	0	0	0	0	
10.		0	0	0	0	0	
11.		0	0	0	0	0	
12.		0	0	0	0	0	
13.		0	0	0	0	0	
14.		0	0	0	0	0	
15.		0	0	0	0	0	
16.		0	0	0	0	0	
17.		0	0	0	0	0	
18.		0	0	0	0	0	
19.		0	0	0	0	0	
20.		0	0	0	0	0	

To delete an item, make the cost per item zero (0).

Total Capital Cost: 4,134 $

PV Grand Total

EXHIBIT G

PARTICIPATION AGREEMENT
FOR THE CLEANS STREAMS FOUNDATION, INC. TRUST

This Participation Agreement ("Participation Agreement") entered into this 10th day of August, 2017, by and between FUEL RECOVERY, INC., a Pennsylvania corporation, with its principal place of business at 254 Interpower Drive, Colver PA 15927 ("Participant"), and the CLEAN STREAMS FOUNDATION, INC. ("Trustee" or "Foundation"), a Pennsylvania nonprofit corporation, with its registered place of business at 160 North McKean Street, Kittanning, Pennsylvania 16201.

WHEREAS, the Participant wishes to provide funds or other assets or guarantees to assure that funds will be available in the future for the operation of certain treatment systems, for the prevention of pollution, and for the protection of natural resources; and

WHEREAS, the Trustee has established, through a Declaration of Trust, dated April 7, 2001, a Trust which purpose is to help assure that funds are available to the Commonwealth of Pennsylvania in the future to operate and maintain treatment systems, to prevent pollution, to protect natural resources from the adverse impacts of untreated discharges into waters of the Commonwealth, and for the health and welfare of the public (the "Trust"); and

WHEREAS, the Trustee has agreed and is willing to accept the Participant's funds or other assets or guarantees and perform the duties as are required to be performed pursuant to this Participation Agreement and the Declaration of Trust; and

NOW THEREFORE, in consideration of the foregoing and of the mutual promises and undertakings of the parties as set forth herein, and with the intention of being legally bound hereby, the parties agree as follows:

ARTICLE ONE
DEFINITIONS

§1.1 The "Department" means the Pennsylvania Department of Environmental Protection, and its successor if any, which is the governmental agency with responsibilities related to the administration of the water pollution control and mining reclamation programs in Pennsylvania.

§1.2 "Operate" means, but is not limited to, the operation, maintenance, improvement, and replacement of treatment facilities approved by the Department and any other facilities which may be required in the future.

§1.3 "Participant" means an individual, organization, or corporation that has elected to participate in the Trust pursuant to a Participation Agreement entered into between the Participant and the Foundation, for purposes of providing funds and/or financial guarantees to assure that funds will be available in the future for the operation of certain treatment systems, for the public purpose of prevention or abatement of pollution, and for the protection of natural resources, the environment, and for the health and welfare of the public.

§1.4 "Treatment Systems" means those certain discharges and treatment facilities and activities for which a Participant has provided funds or other assets or guarantees to be held in trust by the Foundation.

§1.5 "Trustee" means the Foundation acting as trustee under the terms and provisions of the Declaration of Trust and a Participation Agreement entered into with a Participant.

ARTICLE TWO
PARTICIPATION IN THE TRUST

§2.1 The Participant agrees to provide certain funds, assets, and/or guarantees to be held by the Trustee for purposes of assuring that funds are available in the future for the

operation of certain treatment systems, for the prevention of pollution, and for the protection of natural resources (hereinafter "Treatment Systems"); which are more particularly described in the Agreement between the Department and the Participant dated Aug. 10, 2017, which is attached hereto as Exhibit "A" (hereinafter the "DEP Agreement").

§2.2 The Trustee agrees to establish within the Trust Fund a Sub-Account designated as "Sub-Account For Fuel Recovery"("Sub-Account," also referred to as the "Fuel Recovery Water Treatment Trust"), consisting of two parts, a Fuel Recovery Primary Trust Account and a Fuel Recovery Capital Improvement Trust Account.

§2.3 The Participant agrees to make an initial payment to the Trust of $508,325.43.

§2.4 The Participant agrees to make total payments or transfers to the Trust as agreed upon between the Participant and the Department pursuant to the DEP Agreement, Exhibit "A" (hereinafter the "DEP Agreement").

§2.5 Any guarantees, including but not limited to, letters of credit, insurance, surety bonds, etc., delivered by the Participant shall be held by the Trustee until the Department either directs the Trustee to release such guarantee or portion thereof or the Department directs the Trustee to forfeit said bonds or enforce said guarantee and for the Trustee to deposit the proceeds of such guarantee into the Trust Fund. The Trustee shall be under no obligation to pay any premiums or other costs associated therewith. Instead, all such premiums and costs, as well as the responsibility for maintaining the guarantees in full force and effect, shall remain the obligation of the Participant. The Trustee shall take no action with respect to guarantees except as directed, in writing, by the Department, and the Trustee shall not be liable to any party for acting in accordance with such directions.

§2.6 Any payments made by the Participant or on its behalf to the Trustee for deposit into the Trust shall consist of cash, bank checks, bank wire transfers, negotiable instruments, or other property acceptable to the Trustee. The Trustee shall have no responsibility for the amount or adequacy of such payment, but the Trustee shall notify the Department in writing of any deficiencies in the payments agreed to be made by the Participant whenever the Trustee has knowledge of such deficiencies.

ARTICLE THREE
ADMINISTRATION

§3.1 The principal of the Sub-Account shall consist of:

(a) The payments or transfers to the Trustee made by the Participant pursuant to this Agreement for said Sub-Account.

(b) Such payments from time to time and at any time to the Trustee as such may be directed by the Department pursuant to any agreement between the Department and the Participant.

(c) Cash, funds or property transferred from any person to the Trustee and accepted by the Trustee for said Sub-Account.

(d) Any proceeds from surety bonds which are transferred to the Trustee for said Sub-Account.

(e) All investments, reinvestments, assets or proceeds attributable to or derived from the foregoing items in this §3.1.

(f) All earnings, accretions and profits received with respect to the foregoing items in this §3.1.

§3.2 The Trustee shall hold and administer the funds of the Sub-Account in accordance with the terms and conditions of the Declaration of Trust, this Participation

Agreement, and the DEP Agreement.

§3.3 The Trustee shall distribute such amounts from the Sub-Account as the Department shall direct to pay for the operation of the Treatment System or Treatment Systems. This amount may be paid to a third party administrator to the Trust, who shall be responsible for paying the costs of operating the Treatment System in accordance with any instructions that may be issued by the Department in relation thereto.

§3.4 The Participant hereby adopts the Declaration of Trust as the document which governs the administration of this Participation Agreement and the Sub-Account and directs the Trustee to hold and administer the Sub-Account in accordance with the terms and conditions of the Declaration of Trust. The Participant acknowledges that the Commonwealth of Pennsylvania acting through the Department is the legal beneficiary of the Trust and has all rights of a beneficiary under the law, as well as the rights granted under the Declaration of Trust. The Department shall have access to the Trust as provided therein.

§3.5 The funds in the Sub-Account and any other property held by the Trustee pursuant to this Participation Agreement shall not be subject to assignment, alienation, pledge, attachment, garnishment, sequestration, levy or other legal process, either voluntary, involuntary or by operation of law, by, on behalf of, or in respect of the Participant and shall not be subject or applied to the debts, obligations or liabilities of the Participant, including, without limitation, any direct action or seizure by any creditor or claimant under any writ or proceeding at law or in equity. Furthermore, the Participant shall have no legal title to any part of the Trust Fund, and it is the intention of the parties to this Participation Agreement that the Participant's entry into the Trust shall extinguish and remove all of Participant's interest in the Trust from Participant's estate under the Bankruptcy Code or similar laws.

§3.6 Except as otherwise provided in the Declaration of Trust or this Participation Agreement, all payments made to the Trustee or deposits into the Trust by the Participant shall be irrevocable once made, and upon delivery thereof by the Participant, all interest of the Participant therein shall cease and terminate, and no part thereof, nor any income therefrom, shall be used for or devoted to purposes other than for the exclusive benefit of the Department and the Trust as provided herein.

§3.7 The Trustee shall at least quarterly furnish the Participant a statement providing an accounting of all transactions involving the Sub-Account and confirming the value of the Sub-Account. Such statement shall value Trust investments at market value which shall be that market value determined not more than thirty (30) days prior to the date of statement.

§3.8 The Trustee shall be responsible for the keeping of all appropriate books and records relating to the receipt and disbursement of all moneys and assets under this Agreement. The Trustee shall also cause to be prepared all income tax or information returns required to be filed with respect to the Trust and shall execute and file such returns. Each Participant, upon request, shall furnish the Trustee with such information as may be reasonably required in connection with the preparation of such income tax or information returns.

ARTICLE FOUR
AMENDMENTS

§4.1 This Participation Agreement may be amended by an instrument in writing, executed by the Participant and the Trustee, with the consent and acknowledgment of the Department, or by the Trustee and the Department in the event Participant ceases to exist or defaults, but during the existence of the Participant any amendment under this paragraph cannot in any manner affect the irrevocable nature of the Trust.

ARTICLE FIVE
NOTICES

§5.1 All notices, inquiries, directions or other written communications made or given pursuant to the Trust shall be given to the Participant, the Department and the Trustee by certified mail, return receipt requested, addressed to the following addresses, and shall be deemed to be received upon the earlier of the date of signed receipt of the certified mailing or seven (7) days following the date of mailing:

Participant: Fuel Recovery, Inc.
254 Interpower Drive
Colver PA 15927

Trustee: Clean Streams Foundation, Inc.
c/o Dean K. Hunt, Administrator
746 Westland Dr Ste 110
Lexington, Kentucky 40504

Beneficiary: Pennsylvania Department of Environmental Protection
Director, Bureau of Mining and Reclamation
Fifth Floor, Rachel Carson Building
400 Market Street
Harrisburg, PA 17105-8461

§5.2 Any change in the above addresses shall be made by giving notice to all parties to this Participation Agreement.

ARTICLE SIX
DISPUTES

§6.1 In the event of any dispute between the parties, the parties agree to attempt to resolve the dispute through negotiation or a method of alternative dispute resolution. No litigation shall be commenced without a certification by an authorized officer, employee, or agent of any party that the dispute cannot be resolved by negotiation or alternative dispute resolution provided in writing at least 20 days before commencing legal action.

§6.2 A party receiving such notice shall have 10 days after receipt of said notice to

demand that said dispute be resolved by binding arbitration. If arbitration is requested, the dispute shall be resolved in accordance with the arbitration rules of the American Arbitration Association then in effect without regard to the date of execution of this Agreement.

ARTICLE SEVEN
CONSTRUCTION

§7.1 As used in this Agreement, words in the singular include the plural and words in the plural include the singular. Words used in this Agreement shall be given the meaning set forth in the Declaration of Trust, or in the absence of a definition therein, their plain and ordinary meaning, except that, words used in a financial or investment context that are terms of art shall be given their commonly accepted meaning when used in the context of financial services and investment practices. The headings of each section of this Agreement are for descriptive purposes only and shall not affect the interpretation or legal efficacy of this Agreement.

§7.2 Any provision of this Agreement which is prohibited or unenforceable in any jurisdiction shall, as to such jurisdiction, be ineffective to the extent of such prohibition or unenforceability. Such prohibition or unenforceability shall not invalidate the remaining provisions hereof; nor shall such prohibition or unenforceability in a jurisdiction render any provision invalid or unenforceable in any other jurisdiction.

§7.3 All covenants and agreements contained herein shall be binding upon and inure to the benefit of the Participant, the Department and the Trustee, as well as their successors and assigns. Similarly, any request, notice, direction, consent, waiver or other writing or action taken by the Participant, the Department or the Trustee shall bind their successors and assigns.

§7.4 This Agreement shall be construed and governed in all respects in accordance with the laws of the Commonwealth of Pennsylvania.

IN WITNESS WHEREOF, the parties have caused this Agreement to be executed by their respective officers or representatives duly authorized and their corporate seals to be hereunto affixed and attested as of the date first written above.

PARTICIPANT:

FUEL RECOVERY, INC.

By _____

Its PRESIDENT

TRUSTEE:

THE CLEAN STREAMS FOUNDATION, INC.

By _____

Its Administrator

STATE OF Texas,
COUNTY OF Harris, to-wit:

The foregoing instrument was acknowledged before me this 10th day of August, 2017, by David M. Sims, the President of FUEL RECOVERY, INC..

My commission expires Feb. 12, 2021.

LUCINDA L COLLIGNON
Notary ID #124448534
My Commission Expires
Feb 12, 2021

Lucinda L. Collignon
Notary Public

STATE OF KENTUCKY,
COUNTY OF FAYETTE, to-wit:

The foregoing instrument was acknowledged before me this 11th day of August, 2017, by Dean Hunt, the Administrator of the CLEAN STREAMS FOUNDATION, INC.

My commission expires 8.18.18.

Dawn Coon
Notary Public

Dawn Coon
Notary Public, ID No. 517531
State at Large, Kentucky
My Commission Expires on Aug. 18, 2018

CONSENT AND ACKNOWLEDGMENT

The Department of Environmental Protection hereby consents to Participant entering into this Participation Agreement pursuant to the Agreement between the Participant and the Department dated August 9, 2017 and acknowledges the Commonwealth of Pennsylvania's and the Department's status as the beneficiary of the Trust and to evidence its consent and acknowledgment of the terms and conditions set forth herein, as well as the powers and authorities granted to the Department hereunder.

BENEFICIARY:

THE DEPARTMENT OF ENVIRONMENTAL PROTECTION
COMMONWEALTH OF PENNSYLVANIA

By _____

Its District Mining Manager
Clearfield District Mining Office

EXHIBIT "A"

Post-Mining Treatment
Consent Order and Agreement

EXHIBIT H

Form of IPHH Surplus Funds Assignment Letter

Dean Hunt, Esq.
Administrator
Clean Streams Foundation
746 Westland Drive, Suite 110
Lexington, KY 40504

RE: IP Harmar Holdings, LLC Assignment of Surplus Trust Funds to Fuel Recovery Trust

Dear Mr. Hunt:

IP Harmar Holdings, LLC ("IPHH") is an affiliated company of Fuel Recovery, Inc., both under the common ownership of Northern Star Generation LLC. Under a Post-Mining Treatment Trust Consent Order and Agreement ("CO&A") between IPHH and the Pennsylvania Department of Environmental Protection ("DEP"), originally entered in April 2009 as amended in March 2012, IPHH established a Post-Mining Treatment Trust with the Clean Streams Foundation, Inc. ("Harmar Trust"). Under the CO&A, $1,764,528 was calculated to fully fund the Harmar Trust. As of May 31, 2017, the Harmar Trust corpus has grown to $2,555,029.89, a surplus of $790,501.89. In accord with Paragraph 9 of the CO&A, if at the end of any year, the Primary Trust Valuation is greater than the Primary Target Valuation, then a distribution payment may be made to Harmar.

Fuel Recovery, Inc. has recently entered into a Post-Mining Treatment Trust Consent Order and Agreement ("Fuel Recovery, Inc. CO&A") dated _____, under which it has agreed to provide $512,065.12 to fully fund a long term treatment trust associated with the Sonman CRDA in Cambria County. Fuel Resources, Inc. has also entered into a Participation Agreement with the Clean Steams Foundation under which, like IPHH, the Foundation will act as Trustee for the funds.

By this letter with the consent of DEP as expressly agreed to in the Fuel Recovery CO&A, IPHH hereby assigns $512,065.12 of the Harmar Trust surplus to fully fund the Fuel Recovery, Inc. Trust. We respectfully request that the Clean Streams Foundation transfer the funds and notify us upon completion.

Should you have any questions, please contact us.

Sincerely yours,
IP Harmar Holdings, LLC

Member

cc: Robyn Katzman-Bowman, Esq. – DEP Counsel
William T. Gorton III, Esq.

625706:4

EXHIBIT I

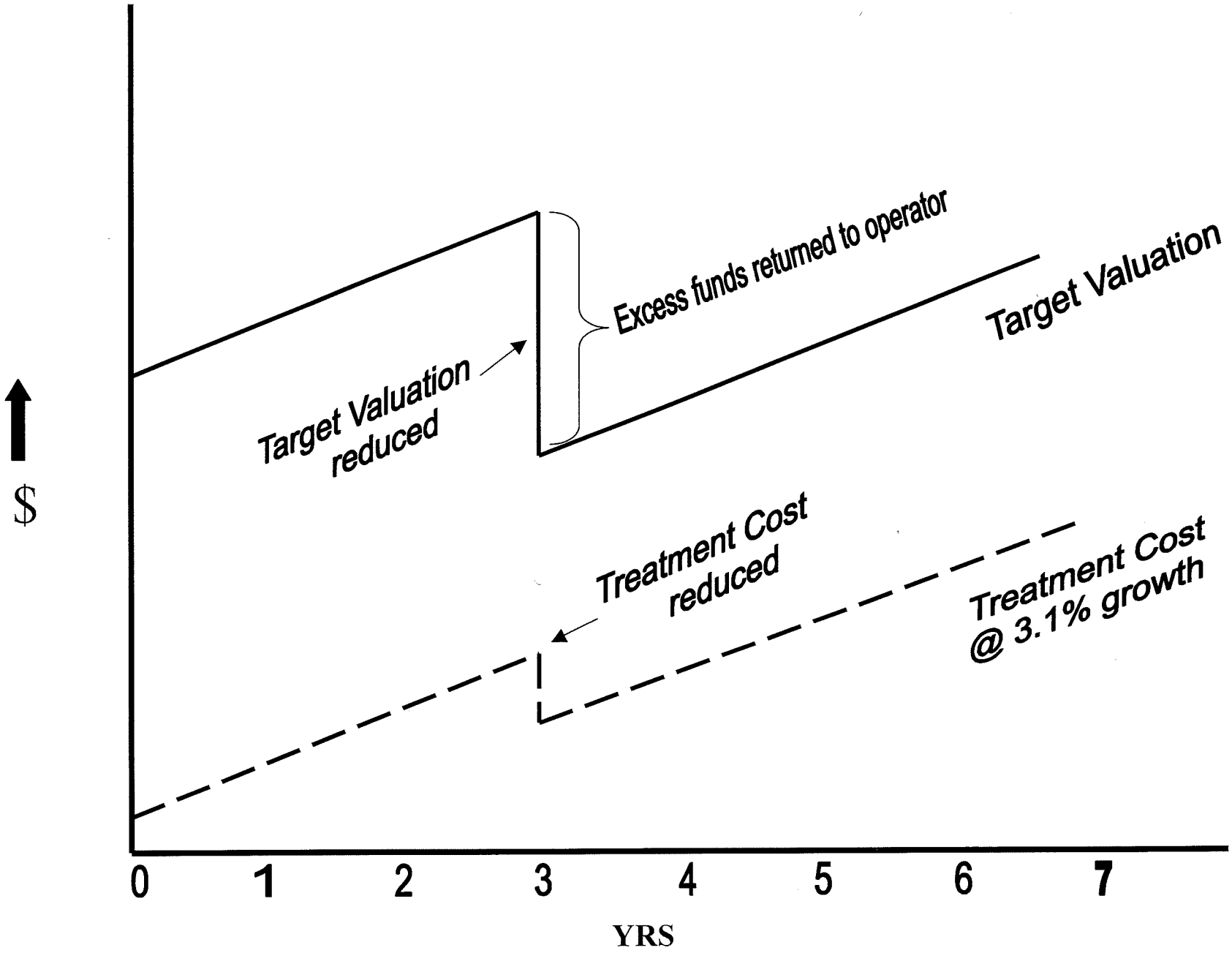

$
Target Valuation reduced
Excess funds returned to operator
Target Valuation
Treatment Cost reduced
Treatment Cost @ 3.1% growth
0
1
2
3
4
5
6
7
YRS

EXHIBIT J

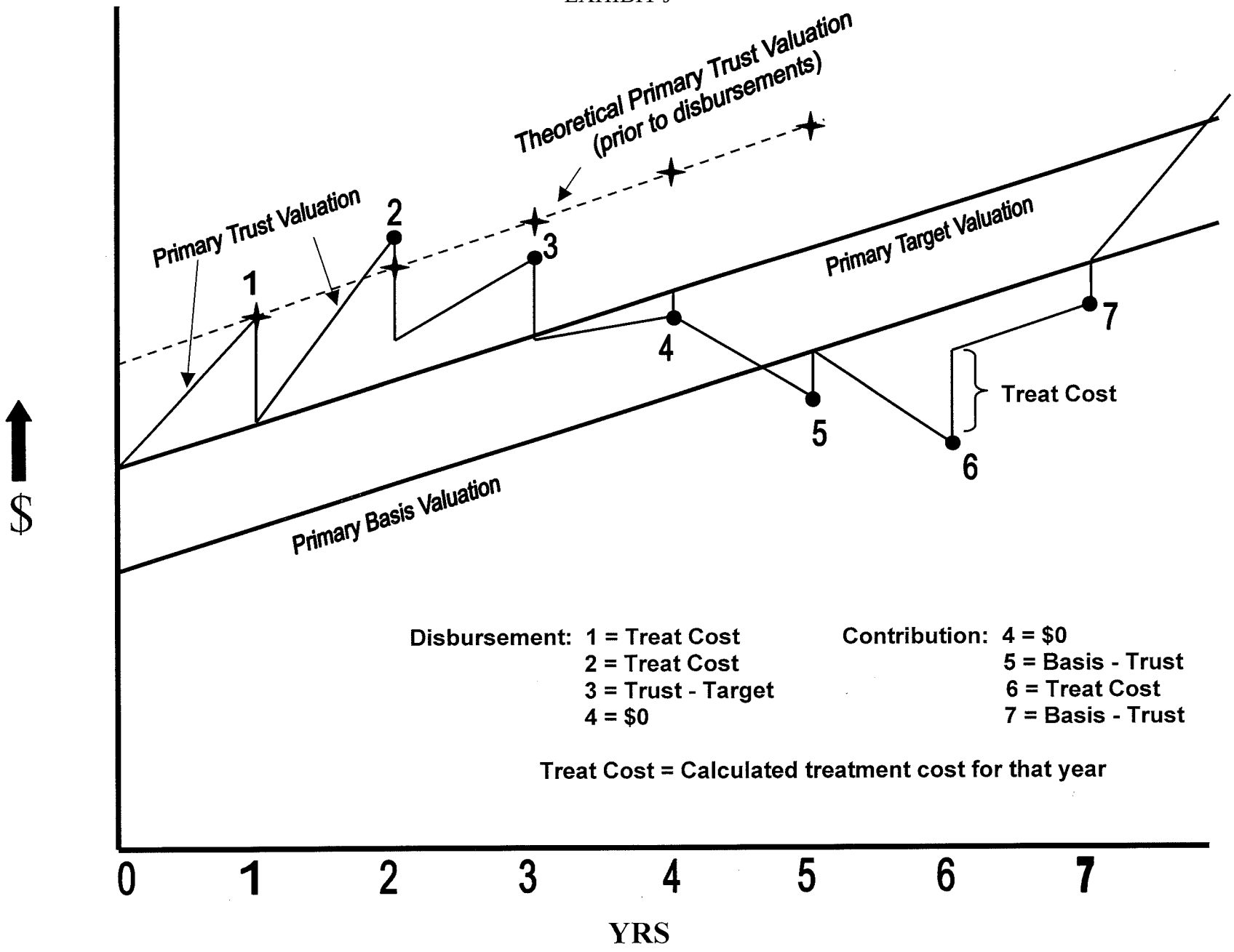

Theoretical Primary Trust Valuation
(prior to disbursements)
Primary Trust Valuation
Primary Target Valuation
Primary Basis Valuation
1
2
3
4
5
6
7
Treat Cost
$
Disbursement: 1 = Treat Cost
2 = Treat Cost
3 = Trust - Target
4 = $0
Contribution: 4 = $0
5 = Basis - Trust
6 = Treat Cost
7 = Basis - Trust
Treat Cost = Calculated treatment cost for that year
0 1 2 3 4 5 6 7
YRS

EXHIBIT K

Transferred Personal Property

1) Two 2,500 gallon HDPE caustic soda storage tanks

2) Stainless steel valves associated with caustic tanks and caustic distribution

3) Black PVC pipes

EXHIBIT L

BILL OF SALE AND LICENSE AGREEMENT

This Bill or Sale and License Agreement is entered into this 10th day of August, 2017, by and between **FUEL RECOVERY, INC.** with its principal place of business at 254 Interpower Drive, Colver, PA 15927 ("Transferor") and **THE CLEAN STREAMS FOUNDATION, INC.,** as Trustee of the Fuel Recovery Post-Mining Treatment Trust (hereinafter the "Fuel Recovery Treatment Trust;" a/k/a the Sub-Account for Fuel Recovery, Inc. under the Clean Streams Foundation, Inc. Declaration of Trust dated April 7, 2001) ("Trustee").

Whereas, Fuel Recovery, Inc. has entered into a Consent Order and Agreement ("CO&A") dated August 10, 2017 with the Pennsylvania Department of Environmental Protection (the "Department"), and

Whereas, Fuel Recovery, Inc. has entered into a Participation Agreement dated August 10, 2017 with the Clean Streams Foundation, Inc. which established the Fuel Recovery Treatment Trust under the Clean Streams Foundation, Inc. Declaration of Trust dated April 7, 2001, and

Whereas, the Department requires Seller to continue to treat the post-mining discharges covered by the CO&A, but also to immediately transfer the water treatment equipment and facilities to the Trustee to facilitate continued treatment of water and protection of the environment in the event Fuel Recovery, Inc. or its successors should cease treating the post-mining discharges.

KNOW ALL MEN BY THESE PRESENTS that Transferor in consideration of One Dollar ($1.00) and other good and valuable consideration, the receipt and adequacy of which is hereby acknowledged, and intending to be legally bound, does hereby bargain, sell, transfer and convey to The Clean Streams Foundation, Inc., as Trustee of the Fuel Recovery Treatment Trust, all of its right, title and interest to the equipment, facilities, and other personal property (the "Personal Property") comprising the Fuel Recovery Treatment Facilities, including, but not limited to, the equipment and other property described on Exhibit 1, attached hereto and made a part hereof, such transfer to be effective as of the date hereof (the "Effective Date").

Transferor represents and warrants that the Personal Property is transferred to Trustee hereby free and clear of all liens and encumbrances.

PROVIDED, HOWEVER, that Fuel Recovery, Inc. and its successors shall have a license to use, operate, maintain, construct or reconstruct the Personal Property to treat the post-mining discharges so long as Fuel Recovery, Inc., or its successor, is conducting the necessary water treatment operations. Pursuant to the exercise of the rights granted under this License, Fuel Recovery, Inc. shall at its sole cost and expense be responsible for maintaining and replacing/upgrading, as appropriate, the Personal Property.

Parts, additional equipment, replacements, and upgrades to the Personal Property and the treatment facilities and systems shall be done with the express written consent of the Trustee and the Department. As a condition of the License hereby granted, Fuel Recovery, Inc. agrees that all such parts, additional equipment, replacements, and upgrades shall immediately and automatically become the property of the Clean Streams Foundation, Inc. as Trustee of the Fuel

Recovery Treatment Trust. As long as this license is in effect and not terminated or revoked, Fuel Recovery, Inc. , or its successor, shall bear all risk of loss of the Personal Property,

This Bill of Sale and License shall be governed by and construed and enforced in accordance with the laws of the Commonwealth of Pennsylvania, without regard to the conflict of law provisions thereof.

IN WITNESS WHEREOF, the parties hereto have hereunto set their hands effective the day and year first above written.

TRANSFEROR:
FUEL RECOVERY, INC.

Witness:

(signature)
By: DAVID M. SIMS
Its: PRESIDENT

TRUSTEE:
THE CLEAN STREAMS FOUNDATION, INC.

Witness: Dawn Coon

(signature)
By: Dean Hunt
Its: Administrator

EXHIBIT 1

Transferred Personal Property

(Identical to POSTMINING TREATMENT TRUST
CONSENT ORDER AND AGREEMENT Exhibit K)

1) Two 2,500 gallon HDPE caustic soda storage tanks

2) Stainless steel valves associated with caustic tanks and caustic distribution

3) Black PVC pipes