

**Primacy ABS Bond Forfeiture Discharge Sites
Status Report July 2008**

The following lists the forfeited primacy permits bonded under the ABS and provides a status and description and cost estimates for the treatment facilities as of July 2008. It is expected that the population of these sites and discharges will continue to evolve as additional information becomes available, management decisions are made, and additional forfeitures occur. Treatment cost estimates are provided to construct facilities (Initial Cost), for annual operation and maintenance (O & M) and to rehabilitate or reconstruct facilities or components when they need to be replaced (Recap). The AMDtreat tool was used to calculate the estimates.

Moshannon DMO

Permittee	Power Operating Co
Permit no.(BF Date)	14663003 (6/23/00)
Site Name	Dugan 2
Township County	Rush/Centre
Discharge id (SIS MP No)	PD' (40953) & PO3-12 (40954)

Passive treatment system design is under contract with a cost of \$40,000. The two discharges will be treated together. Notice to Proceed letter 9/19/07 to Biomost Inc. with a completion due date 3/2008. Treatment cost estimate: Initial cost \$136,921; O & M \$7,026; Recap \$90,441. Bond of \$344,593 remains.

Permittee	Power Operating Co
Permit no. (BF Date)	14663004(6/23/00)
Site Name	Dugan 4
Township County	Rush/Centre
Discharge id (SIS MP No)	PA' (40952)

Passive treatment system design is under contract with a cost of \$15,000. Design calls for a Vertical Flow Pond (VFP) and a Manganese removal bed. Notice to Proceed letter 9/19/07 to Biomost Inc. with a completion due date 3/20/2008. Treatment cost estimate: Initial cost: \$194,362; O & M \$10,359; Recap \$85,186. \$394,420 in bond remains.

Permittee	R S Carlin Inc
Permit no. (BF Date)	14663010 (4/18/06)
Site Name	Mine 26
Township County	Rush/Centre
Discharge id (SIS MP No)	TSN0 (85603)

This discharge is a lower priority to treat because there is a large deep mine discharge upstream that degrades the stream. An alternate surety reclamation project is pending. Travelers Surety Reclamation COA # 074060 dated 11/21/07 with a due date 6/2008.

Treatment cost estimate (based on caustic and pond): Initial cost \$86,120; O & M \$71,831; Recap \$30,731.

Permittee Avery Coal Co Inc
Permit no. (BF Date) 14803008 (6/30/93)
Site Name Pine Glen
Township County Burnside/Centre
Discharge id (SIS MP No) SP3 (59998)

Discharge was conveyed to an already degraded stream (6 Mile Run) and away from a high quality stream (Sterling Run). BAMR built a VFP on Sterling Run unrelated to this discharge. SP3 is severe AMD to already degraded stream. Initial cost \$44,481; O & M \$13,782; Recap \$60,021. Bond was spent.

Permittee Thompson Bros Coal Co
Permit no. (BF Date) 17803054 (1/27/93)
Site Name Alder Run
Township County Boggs/Clearfield
Discharge id (SIS MP No) 36 (40744) & 37 (40745)

BAMR completed surface reclamation and piped the discharges to the permit boundary. The site is undergoing a preliminary assessment and development of specifications by the Moshannon DMO for future 2008 request for Implementation Plan from Professional Design Service providers. For 36 & 37 Combined, Initial cost \$30,312; O & M \$12,189; Recap \$12,773. \$39,557 in bond remains, the rest was spent on surface reclamation.

Permittee Thompson Bros Coal Co
Permit no. (BF Date) 17810154 (7/31/97)
Site Name 001 Strip
Township County Morris/Clearfield
Discharge id (SIS MP No) 25 (7956)

Current Act 181 project is to install conveyance ditch to a Growing Greener funded Passive Treatment System design project area. \$300,000 Growing Greener application for construction grant by the Conservation District. There were insufficient funds in 2007 GG year. Will ask the applicant to resubmit as a 2008 Grant. Initial cost \$158,105; O & M \$10,379; Recap \$401,458. Bond in the amount of \$4,560 remains.

Permittee Chews Contracting
Permit no. (BF Date) 17813143 (4/20/90)
Site Name Little D
Township County Boggs/Clearfield
Discharge id (SIS MP No) LD1(100205)

Not treated. Discharge comes from a pipe from area reclaimed by BAMR. Initial cost \$8,185; O & M \$3,166; Recap \$2,517. Cost based on ALD and settling pond. \$16,040 in bond remains.

Permittee Power Operating Co Inc
Permit no. (BF Date) 17820114 (9/26/00)
Site Name Vought
Township County Decatur/Clearfield
Discharge id (SIS MP No) 9(13052)

Possible remining by Jr. Coal using bond credits (would address the land reclamation). High rate of alkaline addition (funded by Growing Greener II) is also proposed. There is a SOAP application in process. Abandoned chemical treatment system was providing some residual treatment. Cost based on caustic and pond system. Initial cost \$14,093; O & M \$27,815; Recap \$12,773. Discharge is low flow. It comes from on old drift through the crop in an area that has been backfilled. Remining alone is not likely to improve the discharge-however copious alkaline addition is expected to improve the water quality. \$203,307 in bond left.

Permittee Benjamin Coal Co, Inc
Permit no. (BF Date) 17820132 (1/10/90 & 3/6/95)
Site Name Little Beaver 1
Township County Decatur/Clearfield
Discharge id (SIS MP No) RLB2 (89523)

Near this discharge there is severe AMD that needs chemical treatment to already degraded stream. Initial cost \$14,093; O & M \$26,320; Recap \$12,773. \$242,478 in bond remains.

Permittee Avery Coal Co
Permit no. (BF Date) 17820143 (6/30/93)
Site Name Victoria
Township County Boggs/Clearfield
Discharge id (SIS MP No) MP8 (100203) & MP9 (100204)

For MP8, there is natural iron removal before entering the stream. MP9 was reported as "dry" and will be monitored. Assessment and design scheduled for 2010, construction 2011. Combined treatment: Initial cost \$34,914; O & M \$29,537; Recap \$10,630. \$136,976 in bond remains.

Permittee Benjamin Coal Co
Permit no. (BF Date) 17860105 (1/10/90)
Site Name Marshall
Township County Brady/Clearfield
Discharge id (SIS MP No) MP3 (No SIS point)

This discharge is base flow to a stream. The discharge could be passively treated (quality-wise), but it emerges at the edge of the stream. Cost estimate based on wetland and settling pond. Initial cost \$37,233; O & M \$3,430; Recap \$30,455. \$100,100 in bond collected.

Permittee Thomas Coal Sales

Permit no. (BF Date) 17921605 (4/4/01)
Site Name Greenwood Tipple
Township County Greenwood/Clearfield
Discharge id (SIS MP No) 1S (60393) and 2 (57270)

Waroquier Coal Company has proposed repermitting this site; their consultant is working on it. The discharges would be handled as Subchapter F points for a new permittee. For 1S: Initial cost \$20,768; O & M \$3,281; Recap \$14,532. For 2: Initial cost \$14,093; O & M \$26,193; Recap \$12,773. \$92,784 in bond is left.

Permittee Ed Hanslovan Coal Co, Inc
Permit no. (BF Date) 18840101 (7/1/05)
Site Name Keating 1
Township County West Keating/Clinton
Discharge id (SIS MP No) K5(13141), K8(40782), K14(13137), K6(13142), K29 (13140)

K5 has a functioning passive treatment system (VFP) in place. K8, K6 and K14 are treated together-this system (VFP) is also functional. K29 is treated via an ALD-raw water no longer available. Total for K8, K6 and K14: Initial cost \$56,505; O & M \$3,038; Recap \$65,812. For K5: Initial cost \$40,463; O & M \$2,476; Recap \$27,726. For K29: Initial cost \$2,236; O & M \$78; Recap \$3,090. \$75,880 in bond placed in trust (not fully funded).

Permittee Lobb, Inc
Permit no. (BF Date) 18860101 (3/22/96)
Site Name Narco 1
Township County Bald Eagle/Clinton
Discharge id (SIS MP No) 8 (9227)

This has a functioning passive treatment system in place. ALD constructed by surety company as part of forfeiture CO&A, bypasses storm flows over 150 gpm. Initial cost \$20,151; O & M \$3,635; Recap \$20,026. Bond collection was waived.

Permittee Bernice Mining
Permit no. (BF Date) 57830101 (1/2/02)
Site Name Lewis
Township County Cherry/Sullivan
Discharge id (SIS MP No) 102 (59444)

Passive treatment system (VFP) constructed-funded by Growing Greener II in 2007. Initial cost \$164,613; O & M \$5,686; Recap \$107,863. \$192,181 of collected bond remains.

Cambria DMO Primacy BF Discharge Sites

Permittee K & J Coal Co

Permit no. (BF Date) 17880129 (4/29/04)
Site Name Gaber Brown
Township County Chest/Cambria
Discharge id (SIS MP No) GB6 (51741)

There is an additional discharge (GB4) which is mixed with alkaline water from the GB6 pond and piped to a wetland where maintenance is minimal. This should be added to the inventory. This site has a set of two VFPs that require quarterly inspection, flushing, sampling, and minimal other maintenance. The Chest Creek Watershed Association is active in the area. There is a trust fund in place funded at \$1.1 million. Surety completed the land reclamation and facility construction (Actual cost to construct for this permit \$756,400). Treatment cost estimate: O & M Cost calculated in combination with the Westover site listed below. The Recap cost for GB6 is \$599,512. Total present value of the recap is \$1,942,418.

Permittee L & B Coal Co
Permit no. (BF Date) 05830101 (8/6/99)
Site Name No 5
Township County Broadtop/Bedford
Discharge id (SIS MP No) SP4A (12163)

The township is active in operating and maintaining facilities in the area. The discharge is targeted for treatment by them. A Growing Greener grant proposal has been submitted. For caustic-- Initial cost: \$11,864; O & M \$12,530; Recap \$8,646. Bond has not been spent (\$85,487.00).

Permittee K & J Coal Co
Permit no. (BF Date) 11693000 (8/22/03)
Site Name Westover
Township County Chest/Cambria
Discharge id (SIS MP No) 4 (58948), 23 (58947) & P-1 (98484)

This site has three functioning VFPs. They require quarterly inspection, flushing, sampling, and minimal maintenance. Land reclamation and facility construction was completed by the Surety. Treatment facilities for this permit cost about \$1.3 M to build. Treatment cost estimate: O & M \$17,573 Combined; Recap for 4, \$599,512; Recap for 23, \$143,883; Recap for P-1, \$599,512. There is a trust fund in place funded at \$1.1 M, including the Gaber Brown site.

Permittee C & K Coal Co
Permit no. (BF Date) 11783035 (7/18/05)
Site Name Bell Woodcock/Blandburg Plant
Township County Reade/Cambria
Discharge id (SIS MP No) SBG32 (22596)

Treatment plant (caustic) is in place. The existing building would need electric turned on, and caustic in order to get it going again. The in-stream quality is highly degraded by adjacent pre-act AMD. Clearfield Creek Watershed Association has an interest in this site and is developing a GG grant application for a comprehensive treatment approach

which includes the nearby pre-act AMD. Treatment cost estimate: Initial cost \$33,853; O & M \$183,578; Recap \$26,914. Partially funded trust.

Permittee C & K Coal Co
Permit no. (BF Date) 11823002 (7/18/05)
Site Name Stroud
Township County Reade/Cambria
Discharge id (SIS MP No) DEP-1(98486)

Functioning passive treatment system (Mn bed and wetland). The site requires little maintenance other than occasional stirring of the limestone Mn-bed. Chest Creek Watershed Association has an interest in this site. Initial cost \$14,401; O & M \$1,655; Recap \$38,585. Partially funded trust.

Permittee C & K Coal Co
Permit no. (BF Date) 11850106 (7/18/05)
Site Name Cambria 51
Township County Reade/Cambria
Discharge id (SIS MP No) DER-1(22671) & DER-2 (22673)

A GG grant has been awarded to Clearfield Creek Watershed Association in order to rehabilitate this passive treatment system (VFPs, Mn bed and Wetland). For caustic (combined): Initial cost \$16,748; O & M \$76,953; Recap \$12,206. Partially funded trust.

Permittee PA Energy Corp
Permit no. (BF Date) 11813019 (3/21/86)
Site Name Horse Hill
Township County Lower Yoder/Cambria
Discharge id (SIS MP No) MD1(88823)

MD1 discharge has acidity and 20 mg/l Al. A large caustic treatment system operated by M.B. Energy is immediately below this discharge. For caustic: Initial cost \$13,664; O & M \$19,423; Recap \$9,958. BAMR did surface reclamation.

Permittee Acme Drilling
Permit no. (BF Date) 32823035 (2/27/92)
Site Name Broom
Township County Burrell/Indiana
Discharge id (SIS MP No) BS15 (89806)

Discharge impact cannot be measured due to low flow, distance to stream, and pre-act AMD. Blacklick Creek Watershed Association is active in this area. They have not targeted this discharge for treatment, but would likely assist in addressing it. For caustic: Initial cost \$13,664; O & M \$29,866; Recap \$9,958. Forfeited bond spent on land reclamation.

Permittee Delta Mining Inc.
Permit no. (BF Date) 56763022 (1/28/93 & 2/5/96)

Site Name Maust
Township County Elk Lick/Somerset
Discharge id (SIS MP No) RAW(47597) and OLDDH (59915)

Surety constructed Passive treatment system for RAW. OLDDH bypasses the system. It would be difficult (due to a wetland and the lack of fill material) to divert this seep over to the existing VFP; and this additional flow would speed the clogging of the functioning VFP. The O & M needs are minimal. This VFP system has functioned well since construction in 1998 with no flushing, and the first of two VFPs still produces 60 mg/l alkalinity. For VFP/wetland: RAW, Initial cost \$ 117,940; O & M \$3,370; Recap \$302,343. For OLDDH Initial Cost \$52,344; O & M \$2,088; Recap \$120,553. No bond left.

Permittee D & E Construction Co
Permit no. (BF Date) 56773084 (6/28/89)
Site Name Moore
Township County Summit/Somerset
Discharge id (SIS MP No) PIPE (89089), SEEP (89090) & SEEP2 (89091)

There are no treatment facilities for these three seeps. Space is available but the area is a cattail wetland and construction will be difficult at SEEP and unfeasible at the PIPE location. For passive: PIPE: Initial cost \$80,425; O & M \$2,131; Recap \$161,307. For SEEP: Initial cost \$30,328; O & M \$1,757; Recap \$86,492.00. For SEEP2: Initial cost \$33,454; O & M \$1,820; Recap \$61,297.00. \$22,829.00 in bond is left.

Permittee H & H Coal Co
Permit no. (BF Date) 56783046 (4/6/88)
Site Name James E Long
Township County Brothersvalley/Somerset
Discharge id (SIS MP No) MD1 (82890)

Surety reclamation completed the land reclamation. No treatment in place. Two small sed ponds could be used for treatment. Initial cost for Limestone Bed: \$38,503; O & M \$1,782; Recap \$78,011. Bond was waived for Surety reclamation.

Permittee Delta Mining Inc
Permit no. (BF Date) 56793053 (10/14/92)
Site Name Hay 2
Township County Brothersvalley/Somerset
Discharge id (SIS MP No) MD1 (88285), MD2 (88287) & MD3 (88288)

Treatment is not needed for MD1 because water quality good. MD2 (2 gpm) will need some alkaline addition due to Fe of 100 mg/l. Access will be difficult in the woods; collection along stream bank may be difficult. For passive (wetland): MD2: Initial cost \$20,113; O & M \$1,679; Recap \$44,908. For MD3: Initial cost \$8,928; O & M \$1,552; Recap \$12,003. \$86,380 in collected bond remains.

Permittee Windber High Standard Coal Co
Permit no. (BF Date) 56793078 (5/11/94 & 9/26/00)

Site Name Brant
Township County Stonycreek/Somerset
Discharge id (SIS MP No) MD101 (34930)

Passive treatment system of five wetland ponds never worked well and caustic was added. For caustic option: Initial cost \$13,664; O & M \$20,453; Recap \$11,950. \$109,300 in bond collected.

Permittee Delta Mining Inc
Permit no. (BF Date) 56803014 (5/12/92)
Site Name Bashore
Township County Summit/Somerset
Discharge id (SIS MP No) NSEEP (89086) & NNSEEP (89085)

BAMR did surface reclamation. Existing ponds could be used as part of a treatment system. Discharges flow through old treatment ponds. Lead waste was disposed of on site. For caustic option: NSEEP, Initial cost \$13,664; O & M \$31,659; Recap \$9,958. For NNSEEP, Initial cost \$13,664; O & M \$30,159; Recap \$9,958. \$326,507.00 in bond remains.

Permittee L & L Mining Inc
Permit no. (BF Date) 56813054 (6/23/87)
Site Name Berkey
Township County Somerset/Somerset
Discharge id (SIS MP No) SP30 (87383) & SP31 (87484)

Existing facility needs some work. SP31 gets adequate treatment via a wetland and pond. SP30 short circuits which should be repaired. Receiving tributary is not degraded by Fe or Mn. Treatment options include more detention time. For SP30: Initial cost \$5,426; O & M \$1,565; Recap \$5,932. For SP31: Initial cost \$5,426; O & M \$321; Recap \$5,932. \$65,000.00 in bond remains.

Permittee Metco Mining & Minerals Inc
Permit no. (BF Date) 56840103 (3/10/95)
Site Name Ankey
Township County Jenners/Somerset
Discharge id (SIS MP No) MM1 (87389) MM5 (87863) & MM9 (87864)

Separate functional treatment is in place for each discharge. These alkaline-iron discharges flow 1-3 gpm through aerobic wetland ponds. There are minimal O & M needs since the system has been working for many years with no maintenance. For MM1, Initial cost \$13,730; O & M \$871; Recap \$ 41,347. For MM5, Initial cost \$2,711; O & M \$562; Recap \$10,835. For MM9, Initial cost \$ 525; O & M \$1,516; Recap \$1,407. Bond was waived for surety reclamation.

Permittee American Development Corp
Permit no. (BF Date) 56840112 (12/16/94)
Site Name Job 33

Township County Black/Somerset
Discharge id (SIS MP No) BG156 (88846)

Small intermittent discharge diverted through ALD that eventually failed, very little impact. Initial cost \$16,748; O & M \$31,478; Recap \$12,206. Bond was waived for surety reclamation.

Permittee Big J Mining Inc
Permit no. (BF Date) 56960111 (2/27/01)
Site Name Sorber
Township County Quemahoning/Somerset
Discharge id (SIS MP No) MD1 (87223)

High probability for remining with an application is in process. Initial cost \$13,664; O & M \$23,064; Recap \$9,958. Bond remains - \$116,877.00.

Permittee Bituminous Coals Inc.
Permit no. (BF Date) 56773136 (2/16/06)
Site Name Addison Strip
Township County Addison/Somerset
Discharge id (SIS MP No) TOS1, 2, 3 combined

Caustic system and ponds are in-place, but may need updating. For MD1 caustic system: Initial cost \$13,664; O & M \$37,578; Recap \$9,958. Bond declared forfeited but not collected, remaining bond is \$280,240.00. Alternate enforcement actions may result in the operator upgrading the treatment and providing a bond/trust.

Permittee Big Mack Leasing
Permit no. (BF Date) 32950104 (8/20/07)
Site Name Iselin No. 18
Township County Young/Indiana
Discharge id (SIS MP No) MD11 (23085)

Upwelling limestone ponds are in-place, but need additional caustic treatment. Raw water cannot be sampled as it up-wells through limestone pond. MD11 (caustic) Initial cost: \$52,784; O & M \$52,357; Recap \$63,443. Bond declared forfeited but not collected (\$125,000.00). Alternate enforcement actions may result in the operator upgrading the treatment and providing a bond/trust.

Greensburg DMO

Permittee Darmac Coal Inc
Permit no. (BF Date) 03840112 (5/11/94)
Site Name Darmac 14
Township County East Franklin/Armstrong
Discharge id (SIS MP No) D-1 (73563) & D-2 (98329)

D-1 has a functioning passive treatment system (ALD, Sed Pond and Natural Wetland). It is possible that D-2 (headwater to a trib) could be diverted to this system. A limestone ditch is in place for D-2. Treatment cost estimate: For D-1, Initial cost \$34,529; O & M \$3,465; Recap \$177,729. For D-2 (Pond and Mn Removal Bed), Initial cost \$32,931; O & M \$3,251; Recap \$62,409. Bond (\$491,000) has been used for land reclamation.

Treatment system design proposal received.

Permittee Darmac Coal Inc
Permit no. (BF Date) 03890108 (11/15/93)
Site Name Silver Rock
Township County Washington/Armstrong
Discharge id (SIS MP No) Highwall Drain (93827) and Main Discharge/SZ (93828)

The highwall drain has a functioning passive treatment system (limestone & cattail ponds). The main discharge is in a seep zone which has no treatment. The seep zone is alkaline with Fe and Mn. The flow could be collected and directed to a large existing sed pond, which could be modified to treat the water. Treatment cost estimate (Combined): Initial cost \$127,097; O & M \$7,128; Recap \$120,911. Bond collection was waived (\$633,140) for land reclamation. Treatment system design proposal received.

Permittee Arthur Brooks Coal Co
Permit no. (BF Date) 26830108 (6/1/93)
Site Name Honsaker
Township County German/Fayette
Discharge id (SIS MP No) 4 (80184) & 9A (80186)

Sample points 4 and 9A are Sub F points for an adjacent Amerikohl permit. This site has no treatment system. Treatment cost estimate: 4 is low flow discharge (0-2 gpm). 9A has good quality at higher flows and bad quality at low flows. Cost Estimate: For 4 (LS channel), Initial cost \$7,568; O & M \$6,189; Recap \$763; for 9A (Hydrated lime), Initial cost \$45,271; O & M \$7,463; Recap \$4,951. March 2008 Cost estimate (Combined): Initial Cost \$52,839; O & M \$13,652; Recap \$5,714. \$54,622.40 in bond remains. There are potential property issues.

Permittee James Rumble & William Bane
Permit no. (BF Date) 26840110 (2/26/92)
Site Name Rumble & Bane
Township County Luzerne/Fayette
Discharge id (SIS MP No) 1S (40087)

The discharge flows into a sed pond that doesn't discharge. Treatment cost estimate: Initial cost (Pebble Quick lime) \$40,857; O & M \$25,180; Recap \$14,542. \$5,797 in bond remains.

Permittee Cambridge Industries
Permit no. (BF Date) 26840203 (7/14/86)
Site Name Keisterville
Township County Menallen/Fayette

Discharge id (SIS MP No) 1 (85823)

No treatment in place. **Discharge has been reclassified-seep doesn't leave the permit.** Initial cost (VFP, Aerobic WL and MN Removal bed) \$120,577; O & M \$12,927; Recap \$254,311.

Permittee Global Coal Recovery Inc
Permit no. (BF Date) 26931601 (11/1/96)
Site Name Isabella
Township County Luzerne/Fayette
Discharge id (SIS MP No) 37 (20914) & 62 (20318)

Data sheet notes that the discharges may be eliminated by removing the refuse. The site is involved in litigation. Combined system (Hydrated lime and Mn removal bed): Initial cost \$266,049; O & M \$40,885; Recap \$214,140. \$1,194,780 in bond remains.

Permittee Frank Kowalski
Permit no. (BF Date) 65723055 (6/6/94)
Site Name Strip # 3
Township County Murrysville Boro/Westmoreland
Discharge id (SIS MP No) SP8 (40221) & SP8A (40222)

There are fish in the stream above and below the discharges. The discharges were pre-existing and have improved. For SP8 VFP is planned and for SP8A a VFP and Mn removal bed are planned. Site access will most likely require a stream crossing. Combined system costs: Initial cost \$37,218; O & M \$3,884; Recap \$69,570. \$128,696 in bond collected spent for land reclamation.

Permittee Delta Penn Corp
Permit no. (BF Date) 65830202 (7/6/87)
Site Name Hostetter
Township County Unity/Westmoreland
Discharge id (SIS MP No) BS-9 (86385), BS-10 (86384) & BS-11 (86386)

Discharges emanate at the edge of a stream. Stream bank is made up of coal refuse. Low flow discharges (1-2 GPM). Combined system (caustic): Initial cost \$26,398; O & M \$36,513; Recap \$14,754. \$72,561.31 in bond collected and spent. \$550,000 spent on surface reclamation.

Permittee John Hyduke
Permit no. (BF Date) 65880109 (12/1/93)
Site Name Boyle
Township County Salem/Westmoreland
Discharge id (SIS MP No) MP17 (40165) & MP18 (40166)

Flow of MP17 is very low (<1 gpm)-goes to ground before it reaches the stream. **This site has been reclassified as no longer an ABS Discharge site.** MP18 flows at 3-4 gpm and also does not get to the stream. For MP17 (soda ash, settling pond and Mn removal

bed): Initial cost \$17,006; O & M \$26,164; Recap \$41,422. For MP18 (VFP, WL and Mn removal bed): Initial cost \$30,292; O & M \$2,852; Recap \$82,523. Bond (\$11,300) spent on land reclamation.

Permittee Bulldog Excavation
Permit no. (BF Date) 65940108 (1/22/01)
Site Name Andrews
Township County Sewickley/Westmoreland
Discharge id (SIS MP No) MD1 (53255)

Low flow discharge (1 gpm). It is a 50 foot long seep zone along the stream bank. Initial cost (soda ash, Mn removal bed and ponds) \$11,924; O & M \$24,354; Recap \$29,044. \$11,000 in bond collected was spent on land reclamation.

Permittee Greene County Coal Co
Permit no. (BF Date) 30840102 (5/18/94 & 4/4/01)
Site Name McNatt
Township County Monongahela/Greene
Discharge id (SIS MP No) S-1B (17228) and S-2B (17230)

Other discharges associated with this permit either meet effluent (S-2C, and S-1A) or is Alkaline Manganese (S-2A). This permit was on the ABS inventory and removed and then returned. There is an existing treatment system (surety installed) for S-2B. The data sheet indicates that the ALD for S-2B may be plugging. Specific maintenance requirements need to be identified. Discharge S-2C sometimes is slightly acidic with elevated manganese concentrations, but at other times it is alkaline with low metal concentrations. Discharge S-2A meets the alkaline manganese exemption criteria. Recent sampling shows that the in-stream manganese concentration immediately above the entry of S-2A is 2.6 mg/land the in-stream manganese concentration below the entry of S-2A is 2.7 mg/l. Further evaluation is needed. Total (S-2A, S-2B and S-1B/S-2C) Initial cost \$60,628; O & M \$5,089; Recap \$28,093. Bond was waived.

Knox DMO

Permittee Pengrove Coal Co
Permit no. (BF Date) 10820115 (5/18/94)
Site Name Haney
Township County Venango/Butler
Discharge id (SIS MP No) Z-1 (87283)

There is a BAMR constructed treatment facility (VFP) on this permit area which treats a discharge that emanates from the adjacent pre-primacy Jolly site (3074SM23). The facility does not discharge on the surface. Existing system should be excavated and lined. **Since this is related to the pre-primacy permit it is not an ABS obligation and has been reclassified on the MDI.** Treatment cost estimate: Initial cost \$221,122; O & M \$4,781; Recap \$142,004. Bond has been spent. The construction costs are what BAMR spent. The O&M is from AMD Treat.

 Permittee Pengrove Coal Co
 Permit no. (BF Date) 10820121 (6/23/94)
 Site Name Ruth
 Township County Venango/Butler
 Discharge id (SIS MP No) 12.2 (22387), 9B (not in SIS) & 9F (100206)

9B and 9F should be added to the inventory. Treatment system needs to be built. Treatment cost estimate: Initial cost \$70,579; O & M \$65,349; Recap \$64,297. Bond has not been spent (\$259,700). January 2008 samples show that 9F is highly acidic with Mn > 50 and Al > 100. 9B is low flow (was frozen at that time) and is next to the back yard (adjacent to a dog house) of a home that was built after the mining. The costs are based on a caustic system. Initial landowner contact was negative.

 Permittee C & K Coal Co
 Permit no. (BF Date) 10860118 (7/18/05)
 Site Name Snyder Sertik
 Township County Allegheny/Butler
 Discharge id (SIS MP No) D1 (24739)

This discharge has a functioning passive treatment system. Treatment cost estimate: Initial cost \$21,631; O & M \$2,264; Recap \$11,825 (Trust rate of return of 8.43% used). No bond was collected. Partially funded trust. Inspected quarterly. No corrective work has been required yet. Will be evaluated to reclassify as non-ABS if the funds are available to take care of this in the trust.

 Permittee Doverspike Bros Coal Co Inc
 Permit no. (BF Date) 10940105 (2/7/00)
 Site Name Emrick
 Township County Fairview/Butler
 Discharge id (SIS MP No) MD1 (46414), MD1A (52649), MD2 (46415), MD3 (46417), MD4 (46418), MD5 (46419)

This was recently added to the list. Sampling is needed to determine current status of the seeps. Initial sampling conducted in June 2008 shows that the discharges are alkaline. Some met effluent limits. Others are alkaline-manganese. Cost estimates will follow. Treatment will most likely result in negative environmental benefit.

 Permittee C & K Coal Co
 Permit no. (BF Date) 16713004 (7/18/05)
 Site Name Hill Estate
 Township County Limestone/Clarion
 Discharge id (SIS MP No) D2 (27664)

D1-is alkaline-manganese. Treatment cost estimate: Initial cost \$69,601; O & M \$4,249; Recap \$ 38,048 (Trust rate of return of 8.43% used). Partially funded trust. Inspected quarterly. Samples collected in late February 2008. The system consists of cattail ditches and a pond. Since C&K quit chemically treating, the final effluent has been

Permittee C & K Coal Co
 Permit no. (BF Date) 16840103 (7/18/05)
 Site Name Kriebel
 Township County Perry/Clarion
 Discharge id (SIS MP No) Z1(25072)

This discharge has a functioning passive treatment system. Initial cost \$26,866; O & M \$2,447; Recap \$14,687 (Trust rate of return of 8.43% used). No bond was collected. Partially funded trust. Some corrective work was done to a ditch through the Clean Streams Foundation in 2007.

Permittee Glacial Minerals, Inc
 Permit no. (BF Date) 16850101 (1/5/95)
 Site Name Blair
 Township County Porter/Clarion
 Discharge id (SIS MP No) Z-1 (28334) [aka GBL8], SPA1(45232) & SPA2 (43029)

Add SPA2 to the inventory. Enhancements in process by BD crew project. Z-1/GBL8 has a passive treatment system in place. For SPA1/SPA2: Initial cost \$78,270; O & M \$29,011; Recap \$71,304. For Z-1: Initial cost \$111,994; O & M \$4,773; Recap \$102,025. \$294,100 in collected bond remains. GB1 and GBL8 are BAMR id's. Z-1 and SPA1 are DMO SIS id's. There is also SPA2. It goes to the same pond as SPA1 except from the other direction so any added treatment to SPA1 would apply to SPA2 too. The BD crew is scheduled to do the enhancements (move the emergency spillway to eliminate short-circuiting) to the pond sometime in 2008. Additional treatment may be needed after that work is done. For Z-1, treatment consists of the bog and pond. For SPA1 (and SPA2) pebble quick lime 1 ton bin system was used.

Permittee REM Coal Co, Inc
 Permit nos. (BF Date) 33803040/33743044 (5/22/91)
 Site Name Smail Orcutt
 Township County Union/Jefferson
 Discharge id (SIS MP No) RAW (81789) and ALD (81785)

BAMR Constructed "passive" treatment system. O &M (flushing) is being conducted by the Mill Creek Coalition. O & M is a high priority. For RAW: Initial cost \$17,264; O & M \$46,864; Recap \$15,728. For ALD: Initial cost \$14,864; O & M \$24,160; Recap \$13,541. A total of \$953.51 in bond is left. For the O&M costs AMDTreat was used. The last samples show the treatment of RAW not meeting for Mn (>50) and acidity (pH is 7.0) and the treatment for ALD not meeting for Mn (>40). When the existing system fails, treating chemically will probably be the best option. Met with Mill Creek Coalition to discuss arrangements for O & M work.

Permittee Gurosik Coal Co, Inc
 Permit no. (BF Date) 33830117 (7/26/04)
 Site Name King
 Township County Pine Creek/Jefferson
 Discharge id (SIS MP No) BOG (30326)

This has a passive treatment system in place that no longer functions. Initial cost \$69,276; O & M \$3,983; Recap \$63,110. \$71,700 in bond collected. The “raw” water can’t be sampled since it comes up in the bog/pond but the water quality of BOG is highly variable. Sometimes it’s alkaline but most of the time it’s acid. The Fe is less than 7 but is high enough that it probably would cause a problem in a Mn removal bed. The cost estimates were based on an aerobic wetland (to eliminate the Fe) and a Mn removal bed. Scope of work completed.

Permittee	Doverspike Bros. Coal Co, Inc
Permit no. (BF Date)	33840111 (2/7/00)
Site Name	Mowery
Township County	Porter/Jefferson
Discharge id (SIS MP No)	MD1 (30341)

This is a low flow discharge with a functioning passive treatment system in place. Initial cost \$28,553; O & M \$2,340; Recap \$26,011. \$22,455 in bond collected. The O & M amounts to being inspected quarterly. “Raw” water can’t be sampled. The discharge goes through a limestone trench to a pond. MD1 is out of the trench. The pond hasn’t discharged recently and the rarely discharged before. Has met effluent limits when it does discharge.

Permittee	C & K Coal Co
Permit no. (BF Date)	61783001 (7/18/05)
Site Name	Racic
Township County	Scrubgrass/Venango
Discharge id (SIS MP No)	1C (72126)

Discharge treatment is ongoing-funded by the C & K trust. May be reclassified as not being ABS because of this. Initial cost \$79,497; O & M \$35,055; Recap \$43,458 (Trust rate of return of 8.43% used). The C&K trust fund treats 6 sites. Under the contract for 2007, the trust pays \$5825/month to the contractor for all of the sites. The trust spent \$171,000 (including chemicals and maintenance) in 2007.

Permittee	H & D Coal Co
Permit no. (BF Date)	61820102 (12/22/93)
Site Name	Merola
Township County	Irwin/Venango
Discharge id (SIS MP No)	4 (40609), S10 (40611) & S10A (44741)

For discharge 4, BAMR constructed a passive treatment system which is functioning. For Discharges S10 and S10A, treatment must be built and aluminum is an issue. For discharge 4: Initial cost \$74,657 (BAMR Cost plus additional ponds); O & M \$4,120; Recap \$81,614. For S10/S10A: Initial cost \$63,311; O & M \$36,649; Recap \$57,676. \$327,908.42 in bond remains. Inspected quarterly. For discharge 4, a combination of what BAMR spent and AMDTreat was used to get the treatment costs. For discharges S10 and S10A, AMDTreat with caustic was used. Discharge S10A was not flowing in January 2008.

 Permittee Pengrove Coal Co
 Permit no. (BF Date) 61820105 (10/1/93)
 Site Name Martin
 Township County Clinton/Venango
 Discharge id (SIS MP No) 29W (44998)

No treatment in place. Landowner accessibility is unknown. Initial cost \$43,669; O & M \$41,215; Recap \$39,782. The cost is based on using a caustic system. \$135,247 in bond remains.

Summary

As of July 2008, cost estimates indicate that the annual O&M cost for the primacy ABS bond forfeiture discharges is about \$1.35 Million. The capital cost to construct the needed facilities is about \$2.07 Million. The total estimated present value of the recapitalization costs is \$5.6 Million. With the pay-as-you go approach, the present value of the recapitalization costs has limited meaning. Therefore a spreadsheet of the estimated recapitalization cost payouts has been prepared. The total amount of remaining collected bond for these sites to be transferred into the ABS Legacy Sites Trust Account is \$4.9 Million.