

0018

Document Information Form

Mine Number: C1007/004

File Name: Incoming

To: DOGM

From:

Person N/A

Company N/A

Date Sent: November 7, 1994

Explanation:

Sowbelly Canyon Reclamation RIP-RAP CERTIFICATIONS.

cc:

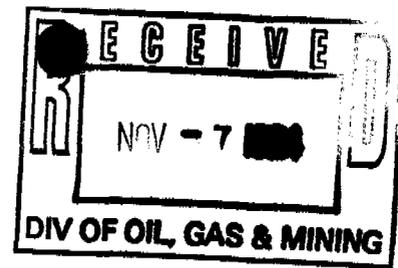
File in: C1 007, 004, Incoming

Refer to:

- Confidential
- Shelf
- Expandable

Date _____ For additional information

ACT 007/004 #6
1994



**Sowbelly Canyon Reclamation
Rip-Rap
Certifications**

Introduction:

On 10/12/94, all rip-rap for the Sowbelly Canyon Reclamation Project was measured for the purpose of providing certification of size. Representative samples were taken for each separate channel reach, and for sediment pond inlets and spillways. All measurements and estimates were made by a registered professional engineer.

Procedure:

Random locations were selected for each channel reach, consisting of 1-3 sites for each reach, and a single, random sample for each pond inlet and spillway. Where possible, actual/weight measurements were taken. This was accomplished by laying out a minimum 24" x 24" grid on the location, removing all rock within the square, and separating and weighing the different size fractions of rock.

In the case of SBRD-1, from stations 0+00 to 10+00, it was not possible to weigh the rock due to the large size (12" - 36"); therefore, a series of random locations were selected, and a visual estimate of D50 size was made at each location.

Test Results:

The following is a summary of the test results for each rip-rap sample location, along with an estimated D50 size required by the plan:

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- Confidential
- Shelf
- Expandable

Refer to Record No. 0018 Date _____

In C/ 007, 004, Incoming
For additional information _____

LOCATION	SIZE/WEIGHT	ESTIMATED D50	REQUIRED D50
SBRD-1A**	(0+00-0+75)	0" - 8"	12"
SBRD-1A*	(1+00) 20" D50 AVG.	20"	12"
SBRD-1B*	(2+00) 24" D50 AVG.	24"	12"
SBRD-1C*	(4+00) 24" D50 AVG.	24"+	12"
SBRD-1C*	(5+00) 24" D50 AVG.	24"	12"
SBRD-1C*	(7+00) 18" D50 AVG.	18"	12"
SBRD-1C*	(9+00) 16" D50 AVG.	16"	12"
SBRD-1D	(12+00)	+5" 50# (45%) 3"-5" 35# (32%) 1.5"-3" 22# (20%) -1.5" 3# (03%)	4 1/2" 4"
SBRD-1D	(15+00)	+5" 60# (47%) 3"-5" 32# (25%) 1.5"-3" 27# (21%) -1.5" 8# (07%)	4 1/2" 4"
SBRD-1D	(19+00)	+5" 52# (37%) 3"-5" 41# (29%) 1.5"-3" 32# (23%) -1.5" 15# (11%)	4" 4"
SBRD-2	(1+00)	+5" 50# (31%) 3"-5" 55# (34%) 1.5"-3" 40# (24%) -1.5" 18# (11%)	4" 3"
SBRD-2	(2+85)	+5" 45# (40%) 3"-5" 35# (31%) 1.5"-3" 27# (24%) -1.5" 5# (05%)	4" 3"
SBRD-4	(1+50)	+5" 55# (42%) 3"-5" 45# (35%) 1.5"-3" 20# (15%) -1.5" 10# (08%)	4" 3"
SBRD-4	(4+60)	+5" 35# (18%) 3"-5" 80# (40%) 1.5"-3" 67# (34%) -1.5" 17# (08%)	4" 3"
SBRD-8***	(1+80)	+5" 50# (29%) 3"-5" 85# (49%) 1.5"-3" 22# (12%) -1.5" 3# (10%)	4" 9"

SBRD-9	(0+30)	+5"	130# (55%)	5"+	5"
		3"-5"	80# (34%)		
		1.5"-3"	15# (06%)		
		-1.5"	12# (05%)		
SBRD-10	(1+00)	+5"	78# (25%)	4"	3"
		3"-5"	156# (49%)		
		1.5"-3"	68# (21%)		
		-1.5"	15# (05%)		
HILLSIDE DITCH (ALL)*		6" D50 AVG.		6"	N/A
POND 016	NORTH	+4"	152# (57%)	4"+	4"
	INLET	-4"	117# (43%)		
POND 016	EAST	+4"	69# (47%)	3.5"+	2"
	INLET	-4"	79# (53%)		
POND 016	SPILLWAY	+5"	105# (60%)	5"+	2"
		-5"	71# (40%)		
POND 017	NORTH	+4"	100# (52%)	4"+	4"
	INLET	-4"	92# (48%)		
POND 017	WEST	+3"	66# (50%)	3"	2"
	INLET	-3"	65# (50%)		
POND 017	SPILLWAY*	6" D50 AVG.		6"	2"

Notes:

* Visual Estimate/In-Place Measurement of Average D50.

** The lower end of SBRD-1A, from Station 0+00 to 0+75 is a transition area from SBRD-1 to SBRD-8. Based on the slope, the rip-rap size should be a D50 of 12" from 0+20 to 0+75; however, since this was a stable, vegetated channel, only a limited amount of rip-rap was placed in this area. The amount of rip-rap, as well as the D50 size in this area, are inadequate, and are therefore not included in this certification.

*** Rip-rap size on SBRD-8 is also inadequate according to the plan, and is therefore excluded from this certification. This area was also part of the stable, vegetated channel discussed in the Note above, and the intent was to leave this area as undisturbed as possible during reclamation.

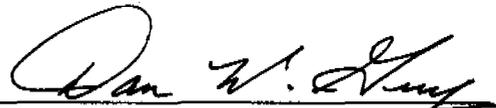
Conclusion:

All rip-rap installed on the reclaimed Sowbelly Canyon Project has been evaluated and found to meet or exceed the minimum D50 size specifications for the respective channel reaches, pond inlets and spillways specified in the plan, except as noted above. The rip-rap is native rock, generated on-site and is primarily of a hard, angular, non-slaking sandstone variety.

It should be noted that the majority of the channels and ponds have already experienced substantial flow resulting from a storm well beyond the design. Although some siltation and minor rock movement had occurred, the rip-rap channels held up well, overall. In fact, the high flows seemed to have a positive effect by helping to "seat" the rock in the channels.

CERTIFICATION:

I hereby certify that the above measurements, estimates and conclusions concerning the Sowbelly Canyon rip-rap are true and accurate to the best of my knowledge.


Dan W. Guy, P.E. ✓



SEDIMENT POND CERTIFICATION
(Construction Certification)

Company Name and Address:

Cyprus-Plateau Mining Co.

P.O. Box P.M.C.

Price, Utah 84501

Amax Coal Company

Castle Gate No. 5 Mine

Permit Number:

ACT/007/004

Pond Location:

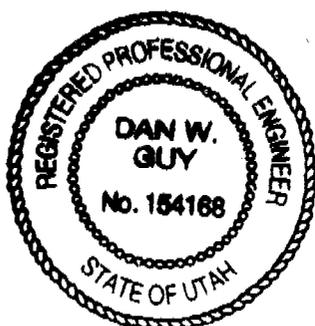
Sowbelly Canyon

Pond Identification:

Sediment Pond 016

Certification Statement:

I hereby certify that I am experienced in the construction of impoundments; I am qualified and authorized in the State of Utah to inspect and certify the construction of the impoundments in accordance with the certified and approved design for this structure; the materials and conditions required for construction are in accordance with approved design and meet or exceed the minimum design requirements; and, that inspections of the impoundment were made during critical periods of the construction by or under my direction in accordance with the requirements of regulation R645-301-514.300.



Dan W. Guy
Signature

10/17/94

Date

AMAX COAL COMPANY
POND INSPECTION REPORT
(Final Inspection)

POND: 016

LOCATION: Sowbelly Canyon

ITEM	REMARKS
(1) Potential Safety Hazards	<u>None Noted.</u>
(2) Slope Stability	<u>Slopes appear stable.</u>
(3) Erosion	<u>None Evident.</u>
(4) Construction and Maintenance Performance Standards	<u>Pond constructed according to plan. Inlets/Spillway rip-rapped.</u>
(5) Recommendations / Comments	<u>Constructed pond has a capacity of 43,708 cu.ft. at the spillway, 32,000 cu.ft. required - O.K.</u>

I have performed the above inspection on this pond and do hereby certify it to be a true and accurate representation of the pond at this time.



Date: 10/17/94

Dan W. Guy

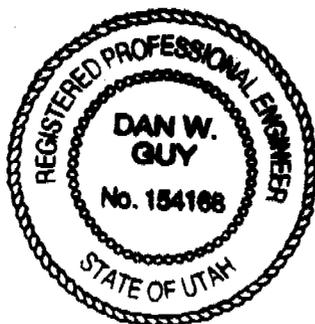
AMAX COAL COMPANY
POND INSPECTION REPORT
(Construction)

POND: 016

LOCATION: Sowbelly Canyon

ITEM	REMARKS
(1) Potential Safety Hazards	<u>None Noted.</u>
(2) Slope Stability	<u>Slopes Appear Stable.</u>
(3) Erosion	<u>None Evident.</u>
(4) Construction and Maintenance Performance Standards	<u>Pond constructed according to plan and grade stakes.</u>
(5) Recommendations / Comments	<u>Pond 90% complete. Need to complete spillway and rip-rap inlets.</u>

I have performed the above inspection on this pond and do hereby certify it to be a true and accurate representation of the pond at this time.



Dan W. Guy
Date: 04/15/94

AMAX COAL COMPANY
POND INSPECTION REPORT
(Construction)

POND: 016

LOCATION: Sowbelly Canyon

ITEM	REMARKS
(1) <i>Potential Safety Hazards</i>	<u>None Noted.</u> _____ _____
(2) <i>Slope Stability</i>	<u>Stable - Excavation just started.</u> _____ _____
(3) <i>Erosion</i>	<u>None Evident.</u> _____ _____
(4) <i>Construction and Maintenance Performance Standards</i>	<u>Being constructed according to plan and grade stakes.</u> _____ _____
(5) <i>Recommendations / Comments</i>	<u>Pond in early construction stage.</u> _____ _____

I have performed the above inspection on this pond and do hereby certify it to be a true and accurate representation of the pond at this time.



Dan W. Guy

Date: 11/18/93

SEDIMENT POND CERTIFICATION
(Construction Certification)

Company Name and Address:

Cyprus-Plateau Mining Co.

P.O. Box P.M.C.

Price, Utah 84501

Amax Coal Company

Castle Gate No. 5 Mine

Permit Number:

ACT/007/004

Pond Location:

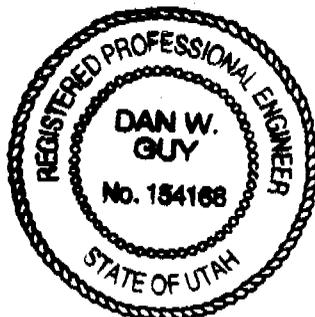
Sowbelly Canyon

Pond Identification:

Sediment Pond 017

Certification Statement:

I hereby certify that I am experienced in the construction of impoundments; I am qualified and authorized in the State of Utah to inspect and certify the construction of the impoundments in accordance with the certified and approved design for this structure; the materials and conditions required for construction are in accordance with approved design and meet or exceed the minimum design requirements; and, that inspections of the impoundment were made during critical periods of the construction by or under my direction in accordance with the requirements of regulation R645-301-514.300.



Dan W. Guy
Signature

10/17/94

Date

800
PIT

AMAX COAL COMPANY
POND INSPECTION REPORT
(Construction)

POND: 017

LOCATION: Sowbelly Canyon

ITEM	REMARKS
(1) Potential Safety Hazards	<u>None Noted.</u>
(2) Slope Stability	<u>Stable - Excavation just started.</u>
(3) Erosion	<u>None Evident.</u>
(4) Construction and Maintenance Performance Standards	<u>Being constructed according to plan and grade stakes.</u>
(5) Recommendations / Comments	<u>Pond in early construction stage.</u>

I have performed the above inspection on this pond and do hereby certify it to be a true and accurate representation of the pond at this time.



Dan W. Guy

Date: 07/13/94

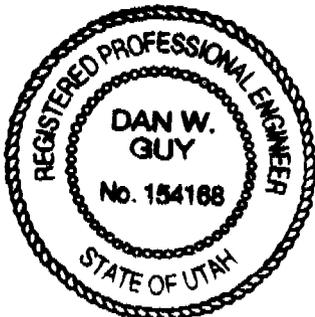
AMAX COAL COMPANY
POND INSPECTION REPORT
(Construction)

POND: 017

LOCATION: Sowbelly Canyon

ITEM	REMARKS
(1) Potential Safety Hazards	<u>None Noted.</u>
(2) Slope Stability	<u>Incised - Stable</u> <u>Slopes approx. 5:1.</u>
(3) Erosion	<u>None Evident.</u>
(4) Construction and Maintenance Performance Standards	<u>New grade stakes set.</u>
(5) Recommendations / Comments	<u>Pond to be deepened and</u> <u>slopes to 3:1.</u>

I have performed the above inspection on this pond and do hereby certify it to be a true and accurate representation of the pond at this time.



Dan W. Guy
Date: 08/01/94

AMAX COAL COMPANY
POND INSPECTION REPORT
(Final Inspection)

POND: 017

LOCATION: Sowbelly Canyon

ITEM	REMARKS
(1) Potential Safety Hazards	<u>None Noted.</u>
(2) Slope Stability	<u>Slopes appear stable -</u> <u>Mostly Incised.</u>
(3) Erosion	<u>None Evident.</u>
(4) Construction and Maintenance Performance Standards	<u>Pond constructed according</u> <u>to plan. Inlets/Spillway</u> <u>rip-rapped.</u>
(5) Recommendations / Comments	<u>Constructed pond has a</u> <u>capacity of 55,285 cu.ft. at</u> <u>the spillway, 53,100 cu.ft.</u> <u>required - O.K.</u>

I have performed the above inspection on this pond and do hereby certify it to be a true and accurate representation of the pond at this time.



Dan W. Guy
Date: 10/17/94

Document Information Form

Mine Number: C/007/0004

File Name: Castle Gate /
Incoming

To: _____

From:

Person _____

Company _____

Date Received: Nov. 7, 1994

Explanation: _____

cc:

Document Information Form

Mine Number: C1007/0004

File Name: Castle Gate /
Incoming

To: _____

From:

Person _____

Company _____

Date Received: 11-7-94

Explanation: Map - Sowbelly Canyon Sediment

Pond 017 AS constructed

cc:

Document Information Form

Mine Number: C/007/0004

File Name: Castle Gate /
Incoming

To: _____

From:

Person _____

Company _____

Date Received: 11-17-94

Explanation: Map - Sowbelly Canyon - Sediment
Pond 016 as constructed.

cc: