

Attachment F

Present Day (2003) Financial Assurance Cost Estimate for
the No. 1X Tailing Reclamation Project

Project Completion Facts

Project Name: **1X Dam Tailing Reclamation**

Construction/Activity Start Date: February 2007

Construction/Activity Completion Date: Substantial completion as of December 2008. Some seeding remains to be completed and is scheduled to be complete before July 1, 2009.

Acres Completed/Affected: 412/532 (tailing area)/(tailing area + other disturbed areas)

Volume/Tonnage of Regrading: 610,000 cubic yards

Volume/Tonnage of Fill and Cover Material: 5,364,000 cubic yards

Linear Feet of Stormwater Conveyance Completed: 47,000 linear feet

Description of Work Completed: The top surface of the tailing impoundment was regraded to meet permit grade requirements. A series of channels were constructed to convey water from the top surface of the impoundment to Whitewater Canyon.

The side slopes were regraded to a slope of 3:1 (horizontal: vertical) with benches approximately every 100 feet of slope length. Cover material was placed over the regraded slopes and channels constructed on each bench. Sideslope channels are at a 2% grade and discharge to a downdrain. The downdrain discharges to Whitewater Canyon.

The majority of the top surface and out slopes were covered with a minimum of three feet of cover material consisting of Gila Conglomerate soils from local borrow areas. Cover material was placed as thick as 18 feet to meet grade requirements.

Evaluation of post construction survey data shows that 97% of Dam 1X is covered by three feet or greater of cover material as shown on attached drawing. 100% of Dam 1X was covered with greater than three feet of cover. Tyrone chose to combine the North Pond area with Dam 1X for presentation in this report and some of the North Pond area has between two and three feet of cover, thus the overall percentage is less than 100% with that included.



Dam 1X as of December 11, 2008



LEGEND

- EXISTING TOPOGRAPHY
- DESIGN TOPOGRAPHY
- APPROXIMATE LIMIT IMPACTED MATERIAL

ISSUE	REV	DESCRIPTION	TECH	ENG	DATE

DISCLAIMER:
THIS DRAWING WAS DEVELOPED THROUGH THE APPLICATION OF PROFESSIONAL ENGINEERING SKILL AND PROPRIETARY METHODOLOGIES, PROCESSES, AND KNOW HOW OF MWH AS AUTHOR, ALL PURSUANT TO THE TERMS OF A CONTRACTUAL SCOPE OF WORK COVERING ITS PREPARATION. THIS DRAWING MAY NOT BE USED OR MODIFIED OTHER THAN IN STRICT ACCORDANCE WITH THE TERMS OF THE GOVERNING CONTRACT AND SCOPE OF WORK OR OTHERWISE ABSENT THE INVOLVEMENT AND CONSENT OF THE AUTHOR. ANY ALTERATION OR ADAPTATION OF THIS DRAWING SHALL BE CONSISTENT WITH THE AUTHOR'S CONTRACTUAL AND PROPRIETARY RIGHTS AND BE AT USER'S SOLE RISK AND WITHOUT ANY LIABILITY OR LEGAL RESPONSIBILITY OF MWH.

DRAWING REFERENCE(S):

DESIGNED BY		
DRAWN BY		
CHECKED BY		
APPROVED BY		
PROJECT MANAGER		
CLIENT APPROVAL		
CLIENT REFERENCE NO.		



PROJECT LOCATION	TYRONE, NEW MEXICO
PROJECT	1 SERIES TAILING IMPOUNDMENTS
TITLE	1X DAM DESIGN

The MWH logo consists of a blue globe icon with white grid lines, followed by the letters 'MWH' in a bold, sans-serif font.

1 of 1

REVISION

FILE NAME
SERIES AREAS WITH LESS THAN 3' COVER

Attachment F - Table 1. Cost Calculation Summary for Completed Work on 1X Tailing Impoundment

Calculation of Financial Assurance Amount Corresponding to Completed Scope in 2003 Dollars
for Work Completed as of December 23, 2008 on: **No. 1X Tailing Dam**

The following calculations and explanations are provided to show how the appropriate amount was calculated as a reduction for the Financial Assurance calculations

The table below summarizes the costs from the financial assurance (FA) cost estimate (Attachment B) that correspond to the scope of work described in this attachment.

The source of these cost numbers is linked by the color coding shown in Attachment B to the exact cells from the FA cost estimate. The color coding in Attachment B links the Table below (same as table on the tab labeled "2008 FA Release Calc") to the original State cost estimate (see tabs labeled "13...Earthsum" and "15...Other"). These are direct costs, so the indirect cost multiplier of 1.396 is used to include indirect costs in the calculation. Other multipliers are used as shown in the table below because NMED and MMD personnel required some FA to be left in place to cover contingencies for addressing work that may need to be completed at the facility in the future. These contingencies are also explained in the table below.

Scope Item	Cost from FA Calculation	Multiplier	Reason for Multiplier
Pushdown existing outcrops	\$0		
Grade Existing Surface	\$5,504		
Grade GC Material	\$10,167	0.985	Previous approved FA reductions allowed 50% reduction in FA for cover activities leaving a contingency for an additional 1 foot of cover placement. Because Tyrone placed 3 feet or greater cover over 97% of this dam, Tyrone requests additional credit be given by using this multiplier which was calculated by taking the usual 50% credit and adding to it 97% of the remaining dollars (97% is the area with equal to or greater than 3 feet of cover). Since Tyrone has met the permit condition for 3 feet of cover in these areas, Tyrone requests additional financial assurance be released than previously allowed. The calculation for this multiplier is provided in Attachment B.
Rip Existing Surface	\$62,452		
Load GC Material on trucks (A)	\$7,201	0.985	same as above
Haul GC Material 2	\$10,535	0.985	same as above
Scraper assist w/ dozer	\$1,211,361	0.985	same as above
Haul GC Material w/ scrapers	\$1,688,837	0.985	same as above
Revegetation 100% (plow, apply fertilizer, seed mix,			No reduction allowed at this time because the agency wants to monitor revegetation success longer before granting partial release.

Attachment F - Table 1. Cost Calculation Summary for Completed Work on 1X Tailing Impoundment

Scope Item	Cost from FA Calculation	Multiplier	Reason for Multiplier
mulch and crimp mulch)			
Other			
Fencing, TP perimeter 3	\$44,946		
Screening plant for rip rap prod.	\$106,437	1	Agencies required some contingency for rip-rap to provide a contingency for unknowns related to placing another foot of cover and how much of the rip-rap in channels would have to be reconstructed due to these activities. The previous typical multiplier was 0.7. Tyrone requests that all of the FA for these activities be released for this dam to account for the fact that essentially 100% of this dam already has greater than 3 feet of cover. 100% of Dam 1X proper has greater than 3 feet of cover and it is a portion of the north pond storm water catchment area that has between 2 adn 3 feet of cover.
Outslope ditch, 100'horiz. Int.	\$140,969		
Outslope ditch rip rap, haul	\$80,200	1	same as rip-rap above
Outslope ditch rip rap, backfill	\$18,819	1	same as rip-rap above
Channels	\$1,702,607		
Spillways & Stilling Basins	\$890,233		
Redesign of the Break Area	\$0		
Direct Cost Sum	\$5,980,267	NA	
Indirect Sum 39.6%			
Indirect Cost Sum	\$2,368,185.62	NA	
Total =	\$8,348,452		

Note: This is the total cost that should be subtracted from the remaining work for this project in Attachment C "current cost" tab.
See last tab of Attachment C to match total above.

Attachment F - Summary of Remaining Financial Assurance Amount for Project Scope

Summary of Remaining Financial Assurance

This summary calculates the financial assurance \$ remaining

for the following project:

No. 1X Tailing Dam

if the requested reduction is granted by State agencies.

The total cost in financial assurance for the project area described in this attachment is

\$9,155,105 (see Attachment B - tab labeled "17...Itemized Bond Sum")

The amount of reduction requested in current dollars is:

\$8,348,452 (see Table 1 of this attachment)

The difference or amount to remain in financial assurance is:

\$806,653

This remaining amount was calculated in 2003 dollars by State agencies to cover costs for all remaining scope items for this project area.

Furthermore, the contingencies explained on the preceding table provide additional \$ to address costs if additional work is needed at the site.