

# TRACKING FORM

## I. KEY FEATURES OF PERMITTEE'S AMENDMENT APPLICATION

Permittee <b>Cyprus Plateau</b>	Mine Name <b>Willow Creek</b>	Amendment # <b>ACT/007/038-96B</b>	Date Received / <i>Hand delivered Benfines</i> <b>5-10-96</b>
Proposal: <b>Temporary Sediment Controls</b>			
Description: <b>to allow topsoil removal in the equipment storage area &amp; the parking lot area</b>			

## II. AMENDMENT CLASSIFICATION

<input type="checkbox"/> Major Amendment	Public Notice Required	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
<input checked="" type="checkbox"/> Minor Amendment	Outside of Permit Area	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
	Outside of Disturbed Area	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No

## III. SUMMARY OF DOGM PROCESSING DATES

Reviews Completed	<b>5/10/96 SJ</b>	<b>FOLLOWUP REQUIREMENTS</b> <i>see's</i>	
Approved Effective	<b>5/14/96 PH</b>	MRP "After Const" Documents	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Disapproved		TA	<input type="checkbox"/> Yes <input type="checkbox"/> No
Mailed		CHIA	<input type="checkbox"/> Yes <input type="checkbox"/> No
Filed MRP - SLO		Responds Within 15 days of Receipt? <input type="checkbox"/> Yes <input type="checkbox"/> No If no, explain below.	

## IV. COORDINATED REVIEWS

EXTERNAL AGENCIES (Mine Specific) <small>(Adverse Comments, if Any, include in Item V)</small>	DOGM REVIEWS/DISCIPLINES		
	COPY SENT	CONTACTED	
OSM <input checked="" type="checkbox"/>	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> C <input type="checkbox"/> N/A	Generalists <input type="checkbox"/> Yes <input type="checkbox"/> N/A
BLM <input checked="" type="checkbox"/>	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> C <input type="checkbox"/> N/A	<b>INTERDISCIPLINARY APPROACH</b>
US Forest Service	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> C <input type="checkbox"/> N/A	- Administrative <input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A
US Fish & Wildlife <input checked="" type="checkbox"/>	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> C <input type="checkbox"/> N/A	- Biology <input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A
US National Parks	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> C <input type="checkbox"/> N/A	- Engineering <input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A
UT Environmental Quality <input checked="" type="checkbox"/>	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> C <input type="checkbox"/> N/A	- Geology <input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A
UT Wildlife Resources	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> C <input type="checkbox"/> N/A	- Hydrology <b>SJ</b> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A
UT State History	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> C <input type="checkbox"/> N/A	- Soils <input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A
UT Water Rights	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> C <input type="checkbox"/> N/A	- Permitting <input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A
UT SITLA	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> C <input type="checkbox"/> N/A	- Other <input type="checkbox"/> Yes <input checked="" type="checkbox"/> N/A
Other	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> C <input type="checkbox"/> N/A	

## V. FOOTNOTES/ADDITIONAL EXPLANATION AS NECESSARY

*Original submittal 5-8-96. Amendment format 5-10-96. Reviewed + approved by SJ for implementation by permittee. Approved by site inspector 5-14-96*



**State of Utah**  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt  
Governor  
Ted Stewart  
Executive Director  
James W. Carter  
Division Director

355 West North Temple  
3 Triad Center, Suite 350  
Salt Lake City, Utah 84180-1203  
801-538-5340  
801-359-3940 (Fax)  
801-538-5319 (TDD)

May 14, 1996

Ben Grimes, Sr. Staff Project Engineer  
Cyprus Plateau Mining Corporation  
P. O. Drawer PMC  
Price, Utah 84501

RE: Temporary Sediment Controls, Cyprus Plateau Mining Company, Willow Creek Mine, ACT/007/038-96B, Folder #3, Carbon County, Utah

Dear Mr. Grimes:

Based on the review and verbal approval of the aforementioned amendment by Mr. Steve Johnson, Reclamation Hydrologist, SLC-DOGGM, I approve your submittal for the installation of the catch basins as additional temporary sediment control at the site.

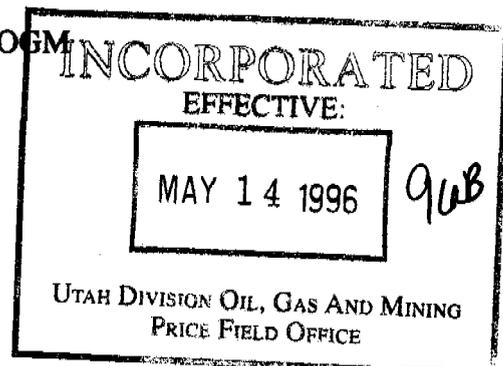
Please submit two additional copies (five total) for dispersal to various government agencies. Thank you.

Sincerely,

Peter Hess  
Reclamation Specialist III

sd

cc: Joe Helfrich, Permit Supervisor, SLC-DOGGM  
Steve Johnson, Reclamation Hydrologist, SLC-DOGGM



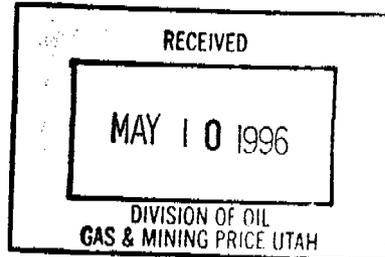


**CYPRUS PLATEAU  
MINING CORPORATION**  
A Cyprus Amax Company

Cyprus Plateau Mining Corporation  
Post Office Drawer PMC  
Price, Utah 84501  
(801) 637-2875

May 9, 1996

Mr. Pete Hess  
Utah Department of Natural Resources  
Division of Oil, Gas and Mining  
451 East 400 North  
Price, Utah 84501



#2  
qub

Dear Mr. Hess,

RE: WILLOW CREEK MINE PERMIT AMENDMENT - TEMPORARY SEDIMENT CONTROLS

The attached is an amendment for temporary sediment controls to allow topsoil removal in the equipment storage area and the parking lot area.

Runoff calculations have been submitted to you and Steve Johnson for approval to control runoff from the drainage areas. The temporary sediment traps included in the plan will be replaced by Sediment Pond No. 1 when it is completed and the drainage ditches running to the pond are completed. Sediment Pond No. 1 will be constructed as soon as the lower stream relocation project is completed. The temporary sediment controls should be used for no more that 2 months.

The sediment traps will be constructed with emergency spillways as per Steve Johnson's direction to provide protection in case of a large runoff event.

Respectfully,

Ben Grimes  
Sr. Staff Project Engineer

File: WGENV 2.5.2.1.1.1  
Chron: B496

# APPLICATION FOR PERMIT CHANGE

Title of Change:  Temporary Sediment Controls During Construction	Permit Number: ACT/007/038  Mine: Willow Creek  Permittee: Cyprus Plateau Mining Corp.
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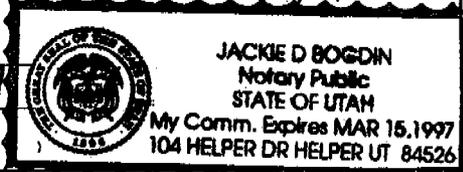
**Description, include reason for change and timing required to implement:**  
 Temporary sediment controls are needed in the equipment storage area and the western part of the employee parking area to control runoff during the initial construction phase of the project. One new sediment trap will be constructed and an existing trap will be enlarged to contain runoff during topsoil removal and grading until Sediment Pond No. 1 is completed.

<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	1. Change in the size of the Permit Area? _____ acres <input checked="" type="checkbox"/> increase <input type="checkbox"/> decrease.
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	2. Change in the size of the Disturbed Area? _____ acres <input checked="" type="checkbox"/> increase <input type="checkbox"/> decrease.
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	3. Will permit change include operations outside the Cumulative Hydrologic Impact Area?
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	4. Will permit change include operations in hydrologic basins other than currently approved?
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	5. Does permit change result from cancellation, reduction or increase of insurance or reclamation bond?
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	6. Does permit change require or include public notice publication?
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	7. Permit change as a result of a Violation? Violation # _____
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	8. Permit change as a result of a Division Order? D.O.# _____
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	9. Permit change as a result of other laws or regulations? Explain: _____
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	10. Does permit change require or include ownership, control, right-of-entry, or compliance information?
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	11. Does the permit change affect the surface landowner or change the post mining land use?
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	12. Does permit change require or include collection and reporting of any baseline information?
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	13. Could the permit change have any effect on wildlife or vegetation outside the current disturbed area?
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	14. Does permit change require or include soil removal, storage or placement?
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	15. Does permit change require or include vegetation monitoring, removal or revegetation activities?
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	16. Does permit change require or include construction, modification, or removal of surface facilities?
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	17. Does permit change require or include water monitoring, sediment or drainage control measures? Temporary sediment controls.
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	18. Does permit change require or include certified designs, maps, or calculations? Calculations & designs provided for traps.
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	19. Does permit change require or include underground design or mine sequence and timing?
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	20. Does permit change require or include subsidence control or monitoring?
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	21. Have reclamation costs for bonding been provided or revised for any change in the reclamation plan?
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	22. Is permit change within 100 feet of a public road or perennial stream or 500 feet of an occupied dwelling?
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	23. Is this permit change coal exploration activity <input type="checkbox"/> inside <input type="checkbox"/> outside of the permit area?

Attach 2 complete copies of proposed permit change as it would be incorporated into the Mining and Reclamation Plan.

I hereby certify that I am a responsible official of the applicant and that the information contained in this application is true and correct to the best of my information and belief in all respects with the laws of Utah in reference to commitments, undertakings, and obligations, herein.

Signed: Jackie D Bogdin      5/10/96  
 Notary Public      Position - Date  
 Subscribed and sworn to before me this 10 day of MAY, 1996  
Jackie D Bogdin  
 Notary Public  
 My Commission Expires: 3-05, 1997  
 STATE OF UTAH  
 COUNTY OF CARBON



RECEIVED

Received by Oil, Gas & Mining

MAY 10 1996

DIVISION OF OIL  
GAS & MINING PRICE UTAH

ASSIGNED PERMIT CHANGE NUMBER  
9103





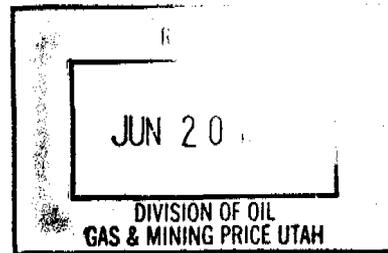
**CYPRUS PLATEAU  
MINING CORPORATION**  
A Cyprus Amax Company

Cyprus Plateau Mining Corporation  
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Price, Utah 84501  
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May 9, 1996

Mr. Pete Hess  
Utah Department of Natural Resources  
Division of Oil, Gas and Mining  
451 East 400 North  
Price, Utah 84501

*gwb*



Dear Mr. Hess,

RE: WILLOW CREEK MINE PERMIT AMENDMENT - TEMPORARY SEDIMENT CONTROLS

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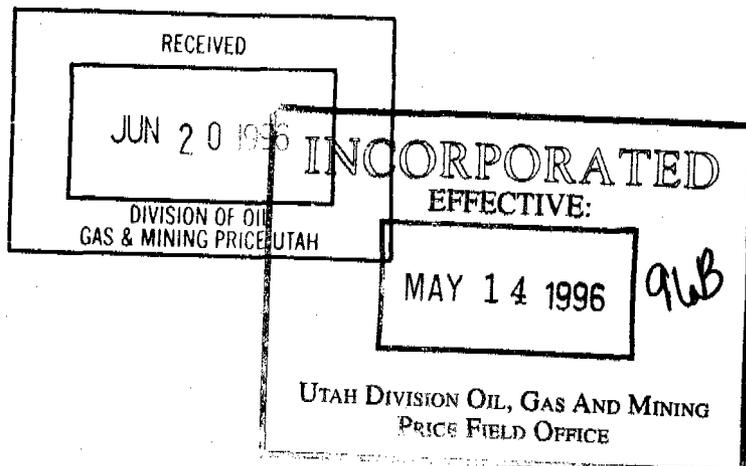
Runoff calculations have been submitted to you and Steve Johnson for approval to control runoff from the drainage areas. The temporary sediment traps included in the plan will be replaced by Sediment Pond No. 1 when it is completed and the drainage ditches running to the pond are completed. Sediment Pond No. 1 will be constructed as soon as the lower stream relocation project is completed. The temporary sediment controls should be used for no more that 2 months.

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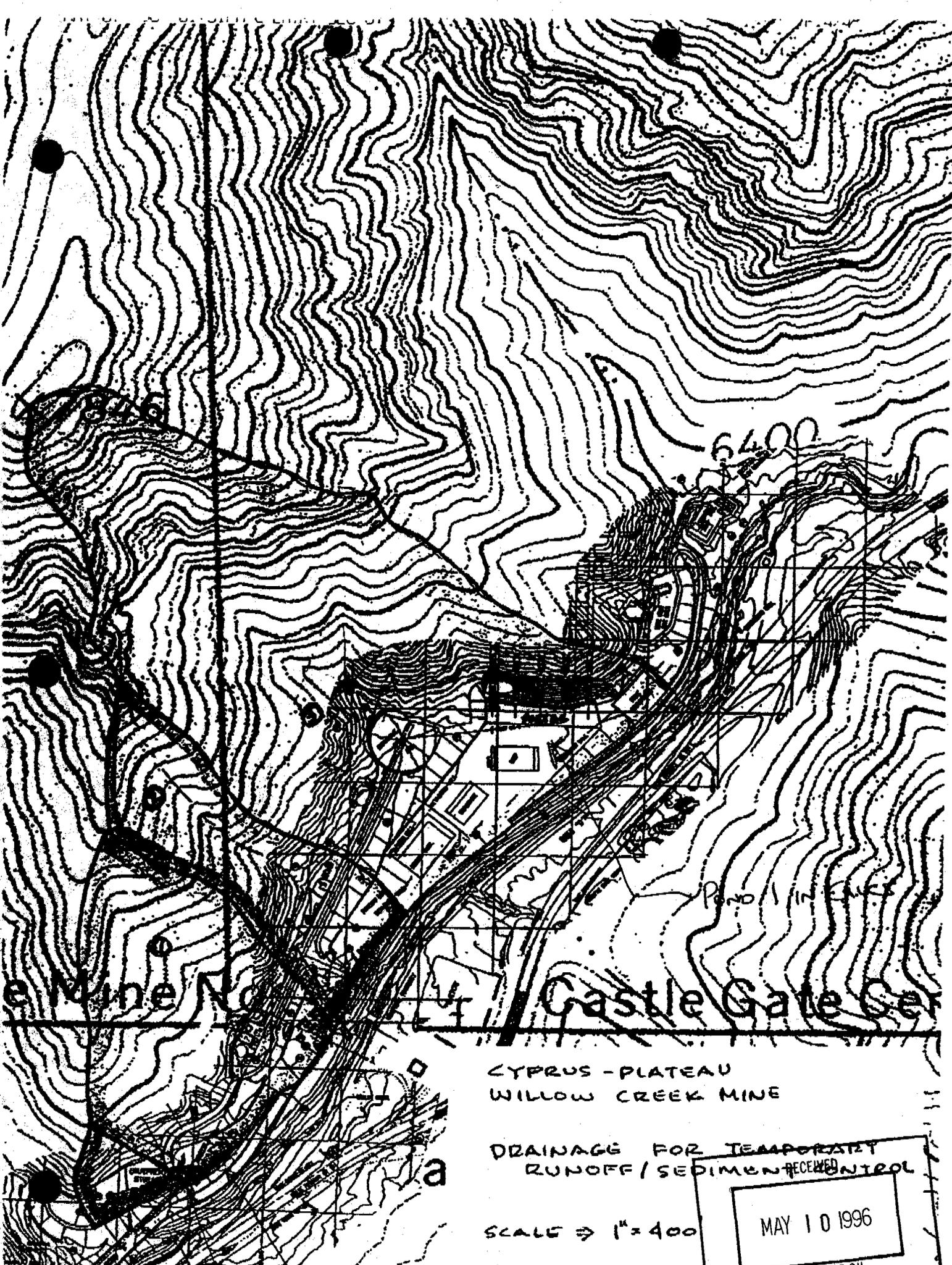
Respectfully,

Ben Grimes  
Sr. Staff Project Engineer

File: WCCNV 2.5.2.1.1.1  
Chron: Bg/16



*gwb*



CYPRUS - PLATEAU  
WILLOW CREEK MINE

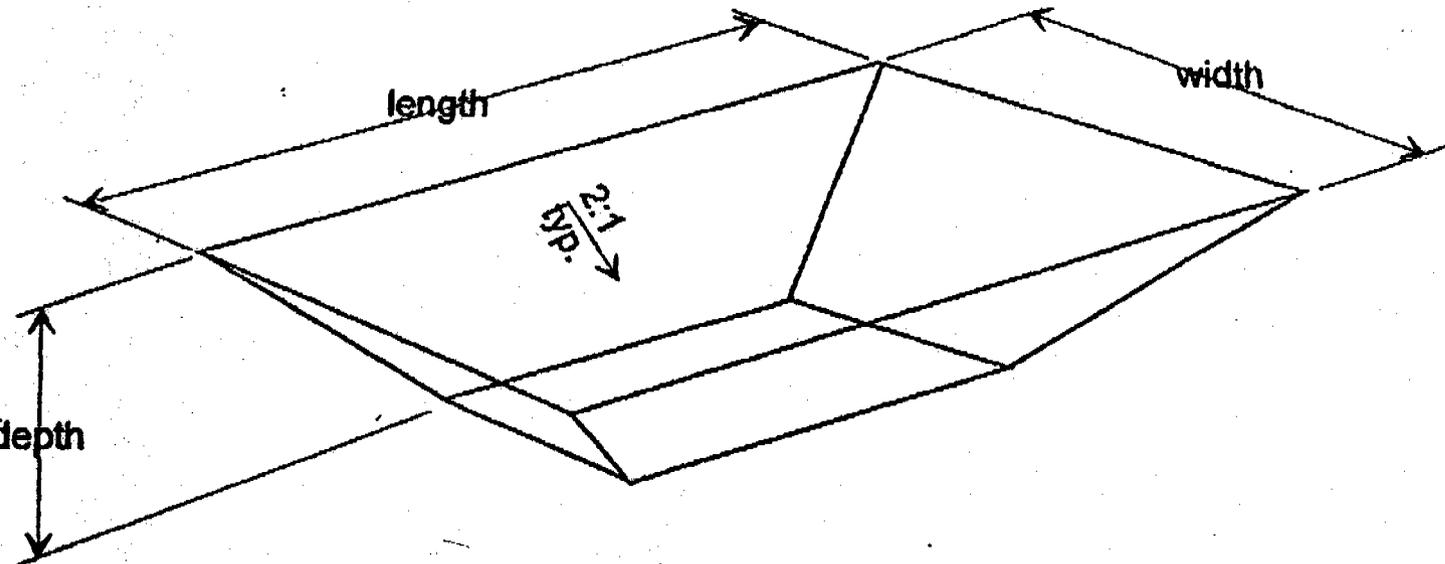
DRAINAGE FOR TEMPORARY  
RUNOFF / SEDIMENT CONTROL

SCALE  $\Rightarrow$  1" = 400'

MAY 10 1996  
DIVISION OF OIL  
GAS & MINING PRICE UTAH

EXISTING SED TRAP = POND 2 IN CALCS  
POND 1 IN CALCS (see plan)

**CYPRUS PLATEAU WILLOW CREEK MINE  
 SEDIMENT TRAPS/PONDS FOR TEMPORARY RUNOFF CONTROL  
 MAY 7, 1996  
 BY GLENN BARTON**



● Ponds are based on 5 year-24 hour storms using SCS-TP-149 "Runoff in Small Watersheds" Two (2) feet of freeboard is allowed for (1 foot deep spillway + 1 foot additional freeboard) See attached drainage basin map for drainage areas.

**POND 1 @ intersection of SC-1 and SC-2**

Length=80 feet  
 Width=45 feet  
 Depth=10.5 feet

*XISTING  
 SED TRAP*

**POND 2 @ Ramp up to stockpile area via SC-1**

Length=70 feet  
 Width=35 feet  
 Depth=10 feet

*NEW*

**POND 3 @ portal face area (includes drainage from areas 2 & 3)**

Length=100 feet  
 Width=80 feet  
 Depth=12.5 feet

*XISTING  
 PORTAL AREA*

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DIVISION OF OIL GAS & MINING PRICE UTAH

 CONSTRUCTORS & ENGINEERS SALT LAKE CITY, UTAH	PROJECT	CYPRUS - PLATEAU	PROJ NO. E95002
	SUBJECT	TOPSOIL STRIPPING	CALC NO.
		TEMP SED CONTROL	BY <i>JD</i> DATE
			CHK DATE
			SHEET OF REV

Temporary Trap #1 at SC-1 to SC-2 Transfer  
 Area = 14.60 AC (Larger area = 16.03 AC) (from 1"=400' map)  
 Temporary Trap #2 at Ramp up to Reclaim via SC-1 road  
 Area = 9.51 AC (partial)  
 = 50.95 AC

5 YR 24 HOUR STORM = 1.8 inches per TerraMatrix Data  
 HYDROLOGIC SOILS GROUP = C PER TerraMatrix Data  
 AVE RCN  $\approx$  76

→ USE SCS-TP-149 Runoff from small watersheds  
 page 5, figure 3

DIRECT RUNOFF = .32 in

TRAP #1

$$\text{Runoff} = \frac{14.6 \times .32}{12} = .39 \text{ AC-FT} \quad \text{OR} \quad 16988 \text{ CC}$$

$$(16.03 \times .32) / 12 = .427 \text{ AC-FT} \quad \text{OR} \quad 18620 \text{ CC} \leftarrow$$

TRAP #2

$$\text{SMALL AREA} = \frac{9.51 \times .32}{12} = .25 \text{ AC-FT} \quad \text{OR} \quad 10890 \text{ CC} \leftarrow$$

TRAP #2

$$\text{LARGE AREA} = (50.95 \times .32) / 12 = 1.36 \text{ AC-FT} \quad \text{OR} \quad 59242 \text{ CC}$$

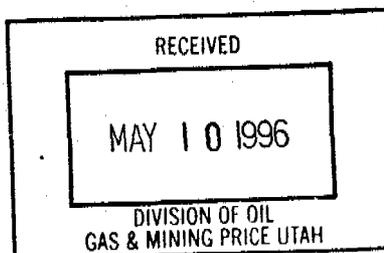
ASSUME PRISM SHAPED RECTANGULAR PONDS

$$V = \frac{1}{3} D (A_T + A_B + \sqrt{A_T \times A_B})$$

$A_T$  = TOP AREA

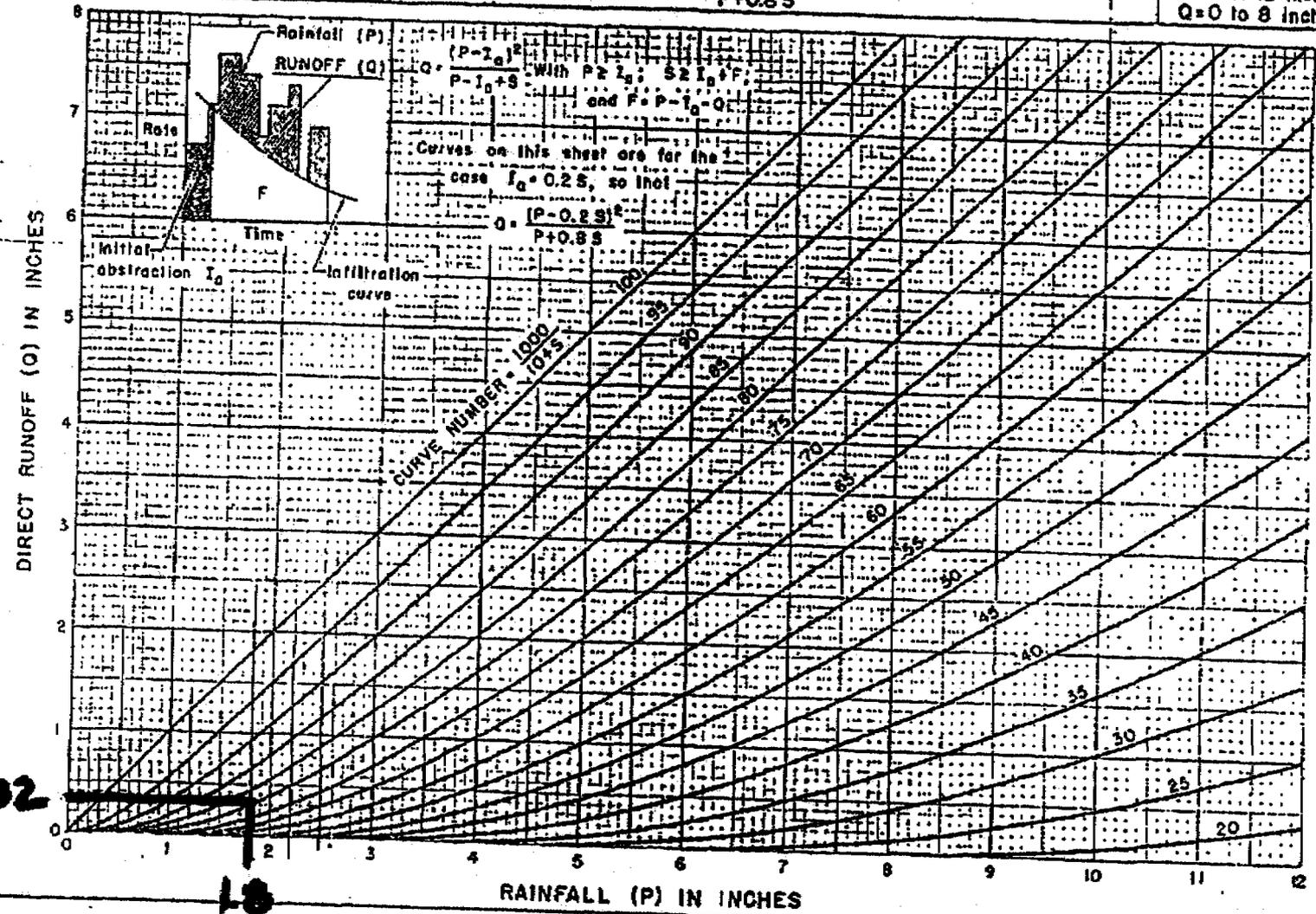
$A_B$  = BOTTOM AREA

$D$  = DEPTH



HYDROLOGY: SOLUTION OF RUNOFF EQUATION  $Q = \frac{(P - 0.2S)^2}{P + 0.8S}$

P = 0 to 12 inches  
Q = 0 to 8 inches



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$$CN = \frac{1000}{10 + S}$$

$$\therefore S = \frac{1000 - 10CN}{CN}$$

Figure 3.--Solution of the runoff equation,  $Q = \frac{(P - 0.2S)^2}{P + 0.8S}$