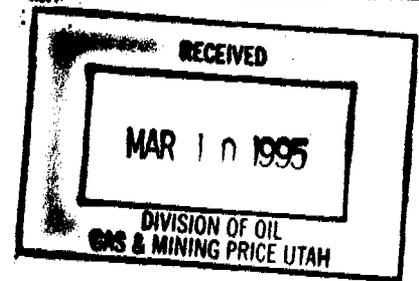




Cyprus Plateau Mining Corporation
 P.O. Drawer PMC
 Price, Utah 84501
 (801) 637-2875

March 7, 1995

Bill Malencik
 Reclamation Specialist
 451 East 400 North
 Price, Utah 84501



95A

File ACT/007/006 #2

Re: Replacement of Culvert 74B (12") with a 24" Culvert

Dear Mr. Malencik:

As per our conversation on March 2, 1995, regarding the
 aforementioned, enclosed is an Application for Permit Change.

It is my understanding, after listening to Mr. Jim Carter at the
 February 16, 1995, Environmental Committee meeting and talking
 with Mr. Lowell Braxton on March 2, 1995, that the Division would
 like to have those minor modifications that the do not require a
 multi-discipline review, reviewed and approved by Price Field
 Office.

The modification that Cyprus Plateau Mining is requesting would
 improve runoff control and reduce the man-hours required in
 maintaining the existing culvert. If you have any questions or
 need additional information, please do not hesitate to contact
 me.

Sincerely,

A handwritten signature in cursive script that reads 'Johnny Pappas'.

Johnny Pappas
 Environmental Engineer

Enclosure

APPROVED

MAR 21 1995

DIV. OIL, GAS & MINING
 PRICE, UTAH

cc: John Borla
 Chrono: JP950301

APPLICATION FOR PERMIT CHANGE

Title of Change: REPLACEMENT OF CULVERT 74B (12") WITH A 24" CULVERT

Permit Number: ACT / 007 /006

Mine: STAR POINT MINE

Permittee: CYPRUS PLATEAU MINING

Description, include reason for change and timing required to implement:

THE EXISTING 12" CULVERT REQUIRES CONTINUAL MAINTENANCE. BY REPLACING IT WITH AN OVERSIZED 24' CULVERT, RUNOFF CONTROL WILL BE IMPROVED AND LABOR COSTS REDUCED.

- | | | |
|------------------------------|--|--|
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 1. Change in the size of the Permit Area? _____ acres <input 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 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 type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 16. Does permit change require or include construction, modification, or removal of surface facilities? |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 17. Does permit change require or include water monitoring, sediment or drainage control measures? |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 18. Does permit change require or include certified designs, maps, or calculations? |
| <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 unimproved road? |
| <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? |

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Attach 3 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.

Johnny Lopez Environmental Engineer March 7, 1995
Signed - Name - Position - Date

RECEIVED
Received by Oil, Gas & Mining

Subscribed and sworn to before me this 7 day of MARCH, 1995.
John P. Lopez
Notary Public

My Commission Expires: _____, 19____
Attest: STATE OF _____
COUNTY OF _____


JOHN C. PAPPAS
NOTARY PUBLIC - STATE OF UTAH
1846 EAST CASTLE DRIVE
PRICE, UTAH 84401
COMM. EXP. 6-7-98

ASSIGNED PERMIT CHANGE NUMBER

Culvert No.	Pipe Diameter (in)	Pipe Length (ft)	Pipe Slope (ft/ft)	Available(15) HW/D Ratio	Pipe Capacity cfs		Design Flow Rate (cfs)	Required HW/D Ratio	Design Flow Depth (ft)	Design Velocity (fps)	Inlet/Outlet Conditions
					Inlet Conditions	Full Pipe Flow Conditions					
65A	13	20	0.103	1.4	3.5	14.2	0.27	<0.5	0.10	6.3	Projecting Steel inlet/Outlet to Culvert
66A	13	26	0.068	1.4	3.5	11.5	0.33	<0.5	0.12	5.9	Projecting Steel inlet/Monitor Outlet (14)
67A	13	21	0.087	1.1	2.8	13.0	0.37	<0.5	0.12	5.9	Projecting Steel inlet/Monitor Outlet (14)
68A	13	34	0.082	1.0	2.4	12.6	0.41	<0.5	0.13	6.6	Projecting Steel inlet/Monitor Outlet (14)
69A	13	45	0.061	1.1	2.8	10.9	0.65	<0.5	0.18	6.5	Projecting Steel inlet/Monitor Outlet (14)
69B	13	62	0.073	1.1	2.8	11.9	0.65	<0.5	0.17	7.0	Projecting Steel inlet/Monitor Outlet (14)
70A	18	27	0.109	1.4	8.0	18.8	5.70	1.1	0.56	9.5	Projecting inlet/Outlet D50 = 0.5 ft
70B	18	102	0.119	2.7	13.0	19.6	5.70	1.1	0.55	9.7	Projecting inlet/Outlet D50 = 0.5 ft
70C	18	265	0.101	1.3	7.5	18.1	6.10	1.1	0.60	9.2	Projecting inlet/Monitor Outlet (14)
71A	12	40	0.168	2.5	4.5	7.9	0.85	0.6	0.22	6.6	Projecting inlet/Monitor Outlet (14)
71B	12	40	0.091	1.0	2.0	5.8	0.85	0.6	0.26	5.2	Projecting inlet/Monitor Outlet (14)
72A	18	80	0.07	2.0	11.0	15.1	5.70	1.1	0.64	7.9	Projecting inlet/Monitor Outlet (14)
72B	18	80	0.077	2.0	11.0	15.8	7.20	1.3	0.71	8.7	Projecting inlet/Outlet D50 = 0.5 ft
72C	18	102	0.08	2.8	13.0	16.1	7.20	1.3	0.70	8.9	Projecting inlet/Outlet D50 = 0.5 ft
74A	10	22	0.069	1.8	2.4	5.8	0.36	<0.5	0.14	6.0	Projecting Steel inlet/Monitor Outlet (14)
74B ¹⁶	12	250	0.031	3.0	5.0	3.4	0.36	<0.5	0.17	4.1	Projecting inlet/Outlet Vel < 5.0 fps
75A	18	54	0.06	1.3	8.0	13.9	0.96	<0.5	0.27	4.4	Projecting inlet/Outlet Vel < 5.0 fps
75B	18	290(1)	0.362(5)	2.9	14.0	34.2	0.96	<0.5	0.17	8.7	Headwall inlet/Monitor Outlet (14)
80A	24	67	0.25	1.8	20.0	61.0	15.70	1.3	0.80	14.2	Projecting Steel inlet/Outlet D50 = 1.5 ft

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PRIME 11784

Culvert No.	Pipe Diameter (in)	Pipe Length (ft)	Pipe Slope (ft/ft)	Available(15) HW/D Ratio	Pipe Capacity cfs		Design Flow Rate (cfs)	Required HW/D Ratio	Design Flow Depth (ft)	Design Velocity (fps)	Inlet/Outlet Conditions
					Inlet Conditions	Full Pipe Flow Conditions					
80B	30	55	0.22	2.0	39.0	104.0	29.00	1.4	1.10	15.3	Projecting Steel inlet/Outlet D50 = 1.5 ft
81	27	200	0.20	2.0	24.0	75.0	24.0	1.5	0.9	5.1	Projecting Steel inlet/Outlet Vel 5.1 fps
82	27	42	0.034	2.1	31.0	14.4	1.86	<0.5	0.31	5.6	Projecting Steel inlet/Monitor Outlet (14)

GENERAL NOTE Two types of pipes were identified at CPMC (CMP and Steel). Mannings n used in the above calculations for CMP and Steel are 0.024 and 0.013 respectively.

Revised 3/3/95

All culverts are CMP unless specified in the comment section.

* Required HW/D ratio is that required to hydraulically pass the given design flow rate. All culverts should maintain an additional freeboard of approximately 0.5 feet.

N.A. Data not available.

(1) Measured from available mapping.

(2) As constructed slope information is not available and hence the calculation of this information is not possible.

(3) Continuous pipe section, Inlet flow not applicable.

(4) Based on short entrance section before steepening into downspout section.

(5) Average slope of pipe.

(6) Two 12" dual culverts (downspouts) exist at this location.

(7) Combined capacity for dual pipe system.

(8) Combined capacity of dual culverts 18D and 18E is 1.7 cfs.

(9) Minimum slope measured at culvert exit.

(10) Calculated runoff rate is less than degree of significance.

(11) Not yet installed - Some data unavailable.

(12) Designed to handle undisturbed area drainage tributary to Culvert 54A.

(13) Designed to handle undisturbed area drainage tributary to Culvert 55A.

(14) Calculated Riprap D_{50} is less than 0.5 feet. Monitor channel and install riprap below culvert outlet if significant erosion occurs.

(15) Does not include Freeboard.

(16) 12" Replaced by oversized 24"

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